The Mining Journal
AND ATMOSPHERIC RAILWAY GAZETTE,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 563.---Vol. XVI.] LONDON: SATURDAY, JUNE 6, 1846. [Price 6d.

CRONLLWYN SLATE QUARRY.—TO BE SOLD, BY AUCTION, by Messrs. T. WINSTANLEY and SONS, at the Clarendon Rooms, South John-street, LIVERPOOL, on Wednesday, 10th of June, 1846, at One o'clock in the afternoon, without reserve, to close an account, unless previously disposed of by private contract, of which due notice will be given, the LEASE of that valuable QUARRY, called the

CRONLLWYN SLATE QUARRY,

Situated at FISHGUARD, in Pembrokeshire, together with the BUILDINGS thereon erected, consisting of blacksmiths' and carpenters' shops, stables, powder magazine, &c. Also, the WATER-WHEEL, CIRCULAR SAWING MACHINE, PLANT, and MATERIAL for conducting and carrying on the business in a complete and efficient manner; included in which are several HUNDRED YARDS of TRAMROAD, WAGGONS, BARROWS, assorted TOOLS and IMPLEMENTS, &c.

The hill on which the quarry is situate, consists of 300 acres of land—the whole of which is applicable to quarrying purposes, and the quarry is thoroughly and scientifically opened. The slate is of excellent colour, and of a quality equal to any in the principality.

Twenty-seven years of the lease remain unexpired, at the very moderate annual rental of £50.

Fishguard being one of the termini of the South Wales Railway, there is every probability of an increased demand. The shipping port is safe in all weathers, and is within two miles of the quarry, and affords great facility for exports.

A careful estimate of the outlay and profits, for the first year, has been made by the superintendent of the works, which shows a clear net gain of upwards of £500, which would annually increase, as the quarry shall be more fully opened. The weekly wages for this first year would be under £26.

Samples of the slate may be seen at the offices of the auctioneers, Church-street, where, or on application to Mr. James Wason, solicitor, Wason-buildings, 4, Harrington-street, Liverpool, further particulars may be had, and an inventory of the plant, &c., obtained.

TO BE PEREMPTORILY SOLD, pursuant to an order of the High Court of Chancery, made in a cause, Scale *v.* Fothergill, Thompson, and others, with the approbation of the Hon. St. George Rose, one of the Masters of the said court, at the public sale-room of the said court, at Gray's Inn Coffee-house, Holborn, London, on Thursday, the 11th day of June, 1846, at Twelve for One o'clock, in one lot, the

LEASES, WORKS, ENGINES, LANDS, PLANT, AND EFFECTS,
OF THE
ABERDARE IRON COMPANY,

in the county of Glamorgan; and a WHARF, at Cardiff, in the county of Glamorgan, belonging to the said company.

Particulars and conditions of sale may be had (gratis) at the said Master's chambers, in Southampton-buildings, Chancery-lane, London; of Messrs. Sharpe, Field, and Jackson, solicitors, 41, Bedford-row, London; of Messrs. Gregory and Son, solicitors, 12, Clement's Inn, London; of Mr. Davies, solicitor, Merthyr Tydvil, Glamorganshire; and of Messrs. Maybery, Williams, and Cobb, solicitors, Brecon.

SHARPE, FIELD, & JACKSON, 41, Bedford-row,
Agents for Wm. Davies, of Merthyr Tydvil, Glamorganshire.

IMPORTANT MINING SHARES,

Paying dividends, and presenting, in other respects, eligible investments for capital.

MR. C. WARTON begs to announce, that he is directed by the trustees of the late Henry Gilbard, Esq., of Devonport, to SELL, BY AUCTION, at the Auction Mart, on Thursday, the 18th of June, at Twelve o'clock, SHARES in the following important BRITISH MINES—viz.: Botallack, East Wheal Crofty, Wheal Providence, West Wheal Providence, South Roskear, Dolcoath, Fowey Consols, Hallenbeagle, Levant, Wheal Henry, Wheal Robins, Wheal Rose, and Wheal Anderson Mines, embracing some of the most lucrative established interests in the county of Cornwall, and more recent adventures of the greatest promise.

Particulars may be had at the Auction Mart; at the Golden Lion Hotel, Liverpool; at Pearce's Hotels, Truro and Penzance; and of Mr. C. Warton, auctioneer and estate agent, 38, Threadneedle-street.

MINING MATERIALS.—TO BE SOLD, BY PRIVATE CONTRACT, at WHEAL BETSY MINE, in the parish of Mary Tavy, near Tavistock, Devon, the under-mentioned MATERIALS—viz.:

1 WATER-WHEEL, of 40-feet diameter, 4-feet breast, on Buller's shaft
1 ditto 40-feet ditto 4-feet ditto on Williams's shaft
1 ditto 28-feet ditto 4-feet ditto, for drawing machine, with 250 fathoms 11-16th inch chain
1 ditto 15-feet diameter, 4-feet breast, applied to a grinder, with jigging machines attached
1 ditto 15-feet diameter, 3-feet breast, with stamps attached
1 cast-iron axle, on Job's shaft, with cranks, brasses, &c., complete, and adapted for building a wheel on, 40 to 50-feet diameter, and 4-feet breast
120 fathoms of 3-inch round iron flat-rods
160 fathoms 2½-inch by ¾-inch railroad iron, with saddles, &c.
2 good bobs, at Job's shaft
60 to 70 fathoms of 8-inch square connection-rods, in ditto
40 fathoms casing ladders, &c., in ditto
80 fathoms 8-inch square connection-rods, in Williams's shaft
12 fathoms 12-inch ditto ditto
5 good bobs, at and in Williams's shaft
40 fathoms casings, ladders, &c., in ditto
Capstan, shears, and capstan rope, at Job's shaft
Ditto ditto at Williams's ditto
Ditto ditto at Buller's ditto
Sundry sheds, &c., on dressing floors, with various other necessary materials for working the mine.

The whole is OFFERED FOR SALE, BY PRIVATE CONTRACT, to any person willing to take the same as they stand; and if not so disposed of on or before the 20th inst., they will be advertised FOR SALE, BY PUBLIC AUCTION,

These materials may be seen at any time before the above-named day, by application to Capt. William Williams, at Wheal Friendship, near Tavistock, and who will also be ready to treat for the same.—Dated Wheal Betsy, near Tavistock, June 1, 1846.

MINING MATERIALS, now OPEN for INSPECTION, at HALTON QUAY.—TO BE SOLD, BY PUBLIC AUCTION, at Halton Quay, St. Dominick, on Thursday, the 11th day of June next, by Two o'clock in the afternoon, the undermentioned valuable MINING MATERIALS: consisting of

1 7-inch plunger-pole, 10 ft. long, with H-piece, windbore, stuffing-box, and gland
1 7-inch working barrel, 10 feet long
1 6-inch ditto 6 feet ditto
2 5½-inch ditto
28 fathoms 6-inch pumps; 1 8½-inch ditto
3 6-inch door-pieces; 2 7-inch ditto; 1 6-inch bucket ditto
2 6-inch windbores; 2 7-inch ditto, 9 feet long

Iron work for balance-box, axle for capstan, bucket joints and rods, pump-rods, joints and prongs, seatings, bucket brasses, flange rings, bolts and burrs, yokes, staples and glands, miners' tools, nails, ladders, windlass trees, horse whim, with several fathoms of BB 7-16 inch chain, whim and winze kibbles, pullies, &c., and upwards of 100 fathoms of 2½-inch iron flat-rods.

Many of the above articles are nearly new, and well worthy the attention of mine agents generally; and such purchasers as may require shipping of their purchases will have an important advantage of doing so, as Halton Quay adjoins the navigable River Tamar.

Dated Callington, May 27, 1846. JOHN C. JOHNS, Auctioneer.

FOREST OF DEAN IRON MINES.—TO BE SOLD, BY PRIVATE CONTRACT, the MOIETY of an extensive IRON MINE WORK, in the FOREST OF DEAN, in full working order. It is eligibly situate for exportation of the ore to Wales or Staffordshire.—For particulars apply to Wm. Roberts, Esq., solicitor, Coleford, Gloucestershire; or W. S. Harding, Esq., solicitor, Birmingham.

TO COALOWNERS, MINERAL AGENTS, ENGINEERS, &c.—In consequence of concentrating the drainage of Walbottle Colliery, and lifting the whole of the water from one shaft, there will SHORTLY BE FOR SALE, the THREE present PUMPING ENGINES, with pumps, and all other apparatus belonging thereto—the whole of which are in good condition, and may be seen working until about the middle of next month—viz.:

AT THE CORONATION PIT.

A high-pressure single-acting ENGINE, cylinder 47 in. diameter, stroke 8 ft., with three cylindrical boilers, 28 ft. long by 7 ft. diameter. One of the same size, with two longitudinal tubes, 2 ft. diameter. Four working barrels, lined with copper, 12 in. diameter, and 340 yards of common pumps, with shears, crabs, shear legs, gins, &c.

AT THE KING PIT.

A double-acting condensing ENGINE, cylinder 47 in. diameter, stroke 6 ft., with three haystack boilers, 15 ft. diameter. Four working barrels—viz., 13, 14, 15, and 16 in. diameter, all lined with copper, and 34 yards of common pumps to each barrel, with shears, crabs, shear legs, &c.

AT THE DUKE PIT.

A single-acting high-pressure ENGINE, cylinder 32 in. diameter, stroke 4½ ft., with one boiler (cylindrical), 23 ft. long by 5½ ft. diameter. One working barrel, 14½ in. diameter, lined with copper, and one 13 in., lined with brass, with pumps, shears, &c.

Also, a great QUANTITY of ENGINE and OTHER very useful MATERIALS, besides several TONS of CAST and MALLEABLE IRON.

Apply to Messrs. R. and W. Hawthorn, engineers, Newcastle; or to Mr. Oliver, at the colliery.—Walbottle Colliery, near Newcastle, May 8, 1846.

NOTICE TO THE PROPRIETORS AND SHARE-
HOLDERS OF MINES, SMELTING-WORKS, &c.

Messrs. MITCHELL and FIELD beg to inform the PUBLIC, that they have REMOVED from No. 5 A to No. 23, HAWLEY-ROAD, KENTISH TOWN, where they have erected a spacious LABORATORY, fitted expressly for the performance of all OPERATIONS CONNECTED WITH MINING.—Practical instruction to gentlemen in Assaying, Mineral Analysis, and Manufacturing Chemistry in general.

Assays and Analyses conducted as usual.

All communications to be addressed to Messrs. Mitchell and Field, assayers, No. 23, Hawley-road, Kentish Town.

MINE MATERIALS.—I. T. TREGELLAS, Quay, TRURO presents his respects to MINERS, and begs to OFFER them the following GOODS, of good quality, and at the lowest market prices:—

IRONS, including best Shropshire Bars, extra-refined Chain Iron, Boiler-plates, Kibble-plates, Hoops, and Sheets
Steel of every description
Coals
Gunpowder and Powder Cans
Hemp and Wire Cordage
Best Scrap Chain, warranted
Kibbles and Water Barrels
Nails of all kinds
Sheet Lead, White Lead, and Red Lead
Shovels
Picks and Pick Moulds
Mallets and Mallet Iron
Saws and Hatchets
Shovel Hilts from 1s. per doz. to 5s. per doz.
Pick Hilts
Smiths' Bellows
Oils—of every kind
Grease, at the makers' prices
Fire Brick and Building Brick
Pitch, Tar, Rosin, and Roman Cement
Anvils, Vices, and Files
Leathers
Grindstones
Engine Shag and Sump Strips
Ore Ducks, Poldavy, and Sacking
Patent Felt, for covering cylinders, &c.
Patent Roofing Felt, 1d. per square foot
Lifting Jacks
Patent Fuse, Shooting Needles, and Clay Irons, and every other description of materials for general mine consumpt.

Dated Truro, April 2.

WATER OR STEAM POWER.—WANTED, TWENTY to FIFTY-HORSE POWER, with PREMISES attached, or SPACE on which such may be ERECTED. If in the immediate vicinity of the Thames, or railway communication, would be preferred.—Letters, with full particulars of extent of power and surface, situation, cost of transit from water conveyance, and terms, to be addressed to Mr. English, Mining Record Office, 5, Shorter's-court, Throgmorton-street.

WANTED, FOR THE GLEN OSMOND MINE, near ADELAIDE, SOUTH AUSTRALIA, a competent MINING CAPTAIN.—Any one inclined to undertake the situation, is requested to state his terms, and send his testimonials, which must be quite unexceptionable, both as regards skill and character, to John Offord, Esq., St. Austell, Cornwall.

WHEAL WALTER, NEAR TAVISTOCK.—Any party having a good SECOND-HAND ENGINE to DISPOSE OF, from 16 to 30-inch cylinder, with BOILER complete, may probably hear of a purchaser, by application to James Crofts, Esq., 4, King-street, Cheapside, London, secretary to the mine.

UNITED HILLS MINE COMPANY.—The directors hereby give Notice, that the ANNUAL GENERAL MEETING of the shareholders of this company will be HELD at their office, on Thursday, the 18th day of June next, at One o'clock precisely, to receive the report of the directors, and of the agents in Cornwall, and to elect one director, in the room of Mr. Clarke; and one auditor, in the room of Mr. Henman, who go out by rotation, but are re-eligible. By order of the board,
5, Adam's-court, Broad-street, May 28, 1846. JAMES SMITH, Secretary.

OFFICE OF THE GOVERNOR AND COMPANY OF COPPER MINERS IN ENGLAND, Old Broad-street, London, May 27, 1846.—The Court of Assistants of the Governor and Company of Copper Miners in England hereby give Notice, that a SPECIAL GENERAL COURT will be HELD at the office of the company, 57½, Old Broad-street, on Friday, the 12th of June next, at Twelve o'clock precisely, to confirm the deed authorising the issue of preference shares, and to pass other resolutions relative thereto. By order of the Court of Assistants, W. INGLIS, Sec.

VENTON GIMPS MINING COMPANY.
1000 shares (on the cost-book system.)
PROVISIONAL COMMITTEE.
JAMES HAY, Esq.
A. L. MOCATTA, Esq.
GEORGE MACKAY, Esq.

Forms of application for shares, and full particulars, to be obtained at the office, No. 4, Austinfriars; or of Mr. Richard Thomas, mining agent, 8, George-yard, Lombard-street.
London, June 3, 1846. J. J. ISELIN, Hon. Sec.

PENNANT LEAD AND COPPER MINING COMPANY,
DINAS MOWDDWY, COUNTY MERIONETH.
NOW IN WORK ON THE "COST-BOOK" PRINCIPLE.
6000 shares.—Deposit £1 per share.

COMMITTEE OF MANAGEMENT.
Joseph Carrington Ridgway, Esq., Roehampton Lodge, Roehampton
B. Forrester Scott, Esq., Park-street, Westminster
Calverley Richard Bewicke, Esq., Barsham House, Beccles
Charles Dunbar Atkinson, Esq., Wakefield
William W. Mansell, Esq., Dorchester-place, Blandford-square.
CONSULTING ENGINEER.
Thomas Kitto, Esq., jun., Civil Engineer and Mineral Surveyor, Redruth.
SOLICITORS.
Messrs. Pocock and Marston, 10, Norfolk-street, Strand.
BANKERS.
Messrs. Cocks, Biddulph, and Biddulph, London.
OFFICES—No. 4, SALISBURY-STREET, STRAND, LONDON.

PROSPECTUS.

Pennant Lead and Copper Mine sett extends over about 900 acres, and is situated in the centre of the lordship of Mowddwy, county Merioneth, which is admitted to be one of the richest mineral deposits in the kingdom. It is held under lease from the lord of the said manor, at the usual royalty of 1-10th, for a term of 21 years, renewable for the same period, on payment of a fine.

Pennant is in the immediate vicinity of the mines, on the same manor, of Craigwen, Foel Rhydd, and Cowarch, which are in course of most satisfactory working, and producing ore, which yields from 70 to 80 per cent. of lead, in addition to a considerable quantity of silver. These facts, of themselves, are sufficient to show the value of the property; and as nearly all the lodes on these setts cross Pennant, there is every reason to expect an equally favourable result; while the rapidly-increasing value of lead encourages the more extensive expenditure in the workings, which a company would do. It is a well-known fact, that the requirements of lead follow those of iron; and it is almost superfluous to allude to the extraordinary and increasing demand which exists for the latter.

The backs of several of the veins have been exposed, and an adit is in course of driving.

The high road from Bala to Mallwyd runs along the sett, and the River Dovey is at the base of the mountain. It is about 12 miles from the port of Derwen Las; but, as various projects are before the public for railway communication in this district, there is little doubt but that a short time will furnish direct and speedy transit to London, Liverpool, &c., and wholly supersede the necessity of having recourse to water carriage.

The bill for the Worcester and Porth Dynllean Railway, brought forward by the Great Western Railway Company, has been read a second time in the House of Commons. The line runs near to the Pennant Mine, as shown on the map.

There is an abundant supply of water for every description of machinery, and as the lodes are in the mountains, the fact of driving adits unwaters the mine, and does away with the necessity of steam or other power for that purpose, which is so expensive and troublesome an operation in Cornwall, and other places where the country does not furnish such natural facilities.

The object of the company is to develope and bring into full work the various resources of this sett, and to be in a position to make arrangements in respect to other setts, should the shareholders hereafter so determine. The capital formed from the payment of deposits will be fully sufficient to work the Pennant sett.

The operations of the company are carried on under the "cost-book" principle, which exempts the company from the provisions of the Act for the Registration of Joint-Stock Companies (7 and 8 Vic., cap. 110), the 63d section of which enacts:—

"Provided always, and be it enacted, That nothing in this Act contained shall extend, or be construed to extend, to any partnership formed for the working of mines, minerals, and quarries, of what nature soever, on the principle commonly called the cost-book principle."

The capital realised from the deposit is considered a sum sufficient to bring the undertaking into a paying state; but, in the event of more being required for general purposes, the 16th clause of the "cost-book" provides—

"That no further call than that authorised by the fourth resolution (the deposit) shall be made before the 1st day of January, 1847, and that three months' clear notice of every future call shall be given by the purser for the time being, by circulars to be sent to each adventurer or shareholder, by post—provided always that a period of three calendar months shall elapse between the making of any two calls, and that no call shall exceed the sum of £1 per share."

Under the "cost-book" principle, shareholders have the right of determining their responsibility by giving notice of their intention to relinquish their shares, and on forfeiture of all previous payments. The 21st clause states—

"That any adventurer or shareholder may determine his or her responsibility or liability, with respect to the affairs of this mine, upon his, or her, giving notice, in writing, to the purser of the company for the time being, of his, or her, desire of retiring from the company; and also upon depositing with the said purser the share or shares held by him, or her, and signing a relinquishment of all claims or demands on the company in respect to such share or shares."

For the original purchase of the grant, the sum of 2500*l.* will be required; and, in consideration of the works done in developing the mine, and of the transfer to the company of the lease of Pennant, with all its rights and privileges, the present lessee to have 600 paid-up shares, in addition to the sum of £500, which he has already paid for working and other expenses.

Applications for shares to be made to the purser, at the offices of the company, No. 4, Salisbury-street, Strand; to the solicitors, Messrs. Pocock and Marston, No. 10, Norfolk-street, Strand; or Charles Godwin, Esq., 2, Royal Exchange-buildings, where prospectuses, reports, maps, and every information may be obtained.

GRATIS.—A LIST OF PATENTS and REGISTRATIONS for the MONTH of FEBRUARY, may be had (gratis) on application at the PATENT OFFICE, 89, CHANCERY-LANE, or will be sent free, by post, on receipt of two stamps, together with a Prospectus, containing charges and necessary information for PATENTS and REGISTRATIONS.—Further particulars may be had by applying to Messrs. Barlow and Le Capelain, the Patent Office, 89, Chancery-lane.

MR. H. B. RYE (from Cornwall), MINE AND RAILWAY SHARE AGENT, 80, OLD BROAD STREET, LONDON.
Mines inspected, and every information may be obtained on application.
Mr. Rye has BUSINESS to do in BLAENAVON SHARES.

THOS. P. THOMAS, of the late firm of Rye and Thomas, MINE AGENT, AND DEALER IN RAILWAY AND OTHER SHARES, 80, *OLD BROAD-STREET, LONDON.*

JAMES LANE, SHARE AGENT,
HALL OF COMMERCE, LONDON.

WILLIAM TRENERY, DEALER IN RAILWAY AND MINING SHARES.—ESTABLISHED TEN YEARS.
OFFICES, No. 50, THREADNEEDLE-STREET, LONDON.

PAUL RABEY, Jun., and CO., MINE AND RAILWAY SHARE AGENTS.
OFFICE—No. 12, COPTHALL-COURT, LONDON.

WILLIAM FOX and SON, No. 53, CASTLE-STREET, LIVERPOOL, have always on SALE PIG-IRON, RAILWAY BARS, CHAIRS, and IRON of every description.—TIN PLATES, WIRE, &c.

MESSRS. LAMOND, SMALE, and LAMOND'S PUBLIC SALE OF RAILWAY SHARES, &c., are HELD, at the Hall of Commerce, Threadneedle-street, every TUESDAY and FRIDAY, at One o'clock precisely.—Orders received until Four o'clock of the day prior to sale.—London, June 5, 1846.

MINING OFFICES, REMOVED FROM 16, CORNHILL, to 1, THREE KING COURT, LOMBARD-STREET.—Mr. R. TREDINNICK (of Cornwall), having established PRACTICAL AGENTS and CORRESPONDENTS in every MINING DISTRICT, whereby he obtains early and accurate information respecting MINES, proffers his services to capitalists and adventurers in the PURCHASE and DISPOSAL of SHARES.

MINING PROPERTY.—CAPITALISTS who are disposed to INVEST in CORNISH and FOREIGN MINES, will find the present opportunity very favourable for so doing. From large sums having been lately diverted from such investments for railway speculations, standard mines are now selling at prices that will pay the purchaser 20 per cent. per annum for his outlay. There are also other mines that are on the eve of paying dividends, which can be recommended with confidence.

Applications to be made to Mr. JAMES HERRON, mining agent, No. 3, Adam's-court, Broad-street, London.

MINING RECORD OFFICE, 5, SHORTER'S-COURT.— Mr. HENRY ENGLISH begs to intimate his intention of VISITING the counties of CORNWALL and DEVON, on or about the 20th inst., with the view of INSPECTING and REPORTING on MINES in these districts. Mr. E. will be happy to receive any instructions, or communications, from parties interested therein, and to report thereon confidentially to those who may be disposed to repose confidence in him.

VIRTUOUS LADY COPPER MINE:
WHEAL BEDFORD COPPER MINE:
TAVY CONSOLS COPPER MINE:
GREAT WHEAL WILLIAMS COPPER, LEAD, & TIN MINES:

THE BUSINESS of the ABOVE MINES is CONDUCTED at No. 5, BUCKINGHAM-PLACE, STONEHOUSE, DEVONSHIRE, where all particulars may be obtained. WALTER LOMER, Purser.

POLKINGHORNE'S PATENT METHOD of TREATING TIN ORES.

Messrs. POLKINGHORNE & CO. beg to acquaint ADVENTURERS, and OTHERS interested, in TIN MINES, that they have just obtained HER MAJESTY'S LETTERS PATENT for the SOLE USE of a COMPOUND SOLUTION, effectually to CLEANSE TIN ORE from all extraneous metals—thereby increasing its value from £2 to £4 per ton.

Messrs. P. and Co. are NOW READY to SUPPLY the article from their manufactory, *COPPERHOUSE, HAYLE, CORNWALL,* in casks of 10 gallons each, which quantity is sufficient for a ton of ore.—Price 10s. per cask, and license 5s. per ton of ore.—N.B. Every information can be obtained by applying at the patentee's offices, 12, Clement's-lane, London.—April 4, 1846.

THE PATENT SAFETY FUSE,
FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the SAFEST, CHEAPEST, and most EXPEDITIOUS MODE of effecting this very hazardous operation. From many testimonies to its usefulness with which the manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c.:—"I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this."

Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, Camborne, Cornwall.

SAFETY FUSE FOR BLASTING ROCKS, SUBMARINE EXPLOSIONS, &c.
THE BRITISH AND FOREIGN SAFETY FUSE COMPANY

beg to inform the MANAGERS and AGENTS OF MINES, and OTHER PARTIES engaged in WORKS requiring the SAFETY FUSE, that they are now able to SUPPLY that ARTICLE in ANY QUANTITIES, and of such descriptions, as may be required.

The British and Foreign Safety Fuse Company have spared no expense, in order to make an article of the first quality; and they hope, by a strict attention to business, to merit a continuance of the orders which they may be favoured with.

Orders from any part of the kingdom will be executed with every possible dispatch, and particular care will be observed in packing fuse which may be wanted for exportation.
pDated Redruth, Cornwall, April 21, 1846.

STEAM TO INDIA via EGYPT, MALTA, ITALY, ALEXANDRIA, AND THE PENINSULAR PORTS.
PASSAGE TO BOMBAY, MADRAS, AND CALCUTTA.

The Peninsular and Oriental Steam Navigation Company BOOK PASSENGERS for CEYLON, MADRAS, and CALCUTTA direct, by steamers leaving Southampton on the 20th, and for Alexandria, *en route* to Bombay, on the 1st of every month.

A steamer from Southampton leaves the 1st and 20th of every month for Malta, whence are steamers to Naples, Genoa, Civeta Vecchia, three times a month.

STEAM TO CORUNNA, OPORTO, VIGO, LISBON, CADIZ, AND GIBRALTAR.
A steamer leaves Southampton on the 7th, 17th, and 27th of every month.

Apply at the Peninsular and Oriental Steam Navigation Company's offices, 51, St. Mary Axe, London, where only passages can be secured throughout.

STEAM COAL—WITHOUT SMOKE, as per experiments made at her Majesty's Dockyard, Woolwich.
CAMERON'S COALBROOK STEAM COAL, AND SWANSEA AND LOUGHOR RAILWAY COMPANY.—(Completely Registered and Incorporated.)
OFFICES—2, MOORGATE-STREET, LONDON.

The directors are now prepared to supply steam ship companies, manufacturers, shippers, and others, with the company's steam coal, either at the company's wharf at Swansea, or in London. A statement, showing by comparative trial the superiority of this coal for steam purposes over every other, and a scale of prices, may be had on application at the company's offices here, or at their wharf at Swansea.—March 18, 1846.

STEAM COAL.—The BYNEA COLLIERY TO LET, with immediate possession. It is situate close to the lines of the Llanelly and South Wales Railways; on the former of which the coals are carried for shipment to the Llanelly Dock—a distance short of three miles from the colliery. The Spitty Copper Works are contiguous, to which easy access might be had over the land of the proprietor of the colliery, if at any time those works should be again carried on. The BYNEA COAL has been highly approved of for STEAM PURPOSES and PATENT FUEL, and is in good demand for smiths', and other uses, particularly in the Dublin market.

The PLANT, consisting of a 40 and 20-horse power ENGINES, &c., to be taken on terms to be agreed upon.

For particulars apply (letters pre-paid) to Mr. B. Jones, solicitor, Llanelly; or to Mr. R. Glascodine, at the office of the Llanelly Railway and Dock Company, No. 9, Old Jewry Chambers, London.

SOUTH STAFFORDSHIRE.

FORGE AND MILL TO BE LET.—TO BE LET, for a term of years, all that well-known FORGE and MILL, situated at the LEVEL IRON-WORKS, near Brierley-hill, Staffordshire, consisting of a complete FORGE, with ENGINE of 26-horse power, two powerful helves, 16 puddling furnaces, and every other requisite; a large and complete MILL, with ENGINE upwards of 50-horse power, with squeezers for puddled balls, a train of two pair of puddled ball rolls, two trains of small rolls, trains of merchant bar rolls, hoop rolls, rail rolls, excellent cutter train for rods, numerous shears, drilling machine, five heating furnaces, and excellent lathe, and conveniences of every description. Two upright boilers are worked by the heating furnaces for the mill engine. The rolls, floor plates, furnaces, working tools, and other property belonging to the present tenant, may be taken at a valuation when possession is given.

As the present tenant, in consequence of a recent death, would have no objection to retire, any person wishing immediate possession of the works, may have the same in its present working state, together with the orders and connections of long standing, which are sufficient to find a regular demand for the produce of the works.

The works may be viewed, and all further particulars known, by application to Mr. W. Smith, the Priory, Dudley; or to Mr. James Holcroft, at the Level Mill.

ABSTRACT OF PATENTS GRANTED IN MAY.

W. Higgs, Westminster, chemist, for the means of collecting the contents of sewers and drains in cities, towns, and villages, and for treating chemically the same, and applying such contents when so treated to agricultural and other useful purposes.

A. N. de Rothschild, London, for improvements in heating apparatus and buildings.

W. and C. Mather, Salford, engineers, for improvements in metallic pistons.

C. de Bergue, Arthur-street west, London, for improvements in atmospheric railways.

E. A. King, Warwick-street, Charing-cross, gent., for improvements in the production of magnetic electricity.

A. V. Newton, Chancery-lane, mechanical draughtsman, for certain improvements in machinery for manufacturing screws.

W. Church, Birmingham, for certain improvements in machinery, to be used in making candlestick pans, and various other articles which are usually produced wholly or in part by means of the process called stamping; and also in machinery for making sockets or tubes for candlesticks, and tubes or tubular articles applicable to various other purposes.

T. Melling (of the firm of Melling and Co.,) Rainhill, Lancashire, engineers, for certain improvements in steam-engines, marine, stationary, and locomotive; and in machinery and apparatus connected therewith, parts of which are also applicable to regulating the flow of fluids generally.

M. Rollinson, Brierly-hill, Dudley, engineer, for certain improvements in steam-engines.

C. Hancock, Grosvenor-place, gent., for certain improvements in the manufacture of gutta-percha and its applications, alone, and in combination with other substances.

J. Jeffreys, Norfolk-crescent, Hyde-park, gent., for improvements in steam-engine boilers and furnaces, and improvements in propelling vessels.

H. Greaves, Hulme, Manchester, engineer, for improvements in the construction of railways and the carriages to be used thereon.

C. Bertram, Gateshead, for certain improvements in the manufacture of artificial fuel, and in the application of the residual products to useful purposes.

T. Kenrick, West Bromwich, ironfounder, for improvement in glazing and enamelling the surfaces of cast-iron.

J. Montgomery, Salisbury-street, for certain improvements in the construction of steam-boilers and steam-engines, and in steam-vessels, and in machinery for propelling same.

E. A. Cowper, Smethwick, near Birmingham, engineer, for improvements in the manufacture of railway chairs.

T. Hancock, Stoke Newington, for improvements in the manufacturing and treating of articles made of caoutchouc, either alone or in combination with other substances, and in the means used or employed in their manufacture.

F. Harlow, Paradise-street, Rotherhithe, for improvements in atmospheric railways.

J. J. Ernest Barrael, Rue St. Jacques, Paris, chemist, for improvements in working of certain sulphurets, to transform them into metals or oxides, and to collect the latter, also to collect the oxides from oxidized ores, equivalent to these sulphurets.

BOYDELL'S PATENT HINGES.—Mr. James Boydell, of the Oak Farm Iron-Works, has just obtained a patent for improvements in the manufacture of hinges, both iron and brass. The first improvement consists of casting hinges, with the pivots on which they turn, in one piece: in order to accomplish this, one flap is cast, provided with a suitable core in the shoulder to receive the pivot on which the hinge is to work; after this flap is cast, and the cores removed, the other flap is cast upon its edge in such manner that the two exactly fit, and the fluid metal entering the core in the first flap, forms the necessary pivot. The second improvement consists in a mode of casting brass hinges, when separate pins or axes are to be applied, after the flaps are cast; they are cast on cores not going quite through at one end, and with a little projection at the other—so that, when a pin of the proper length is introduced, the excess of metal is beaten down and filed off, and the pin is completely inclosed. The third improvement consists in casting the flaps for several hinges in one piece, and then dividing them. In casting flaps for hinges it has been usual to have a separate mould for each flap, although several moulds are made in the same box; but the patentee proposes to cast a length of—say, six for instance—with projections on the mould, to form grooves where they are to be divided—so that each hinge can then be broken off, and finished by grinding. A fourth improvement consists in annealing cast-iron hinges in coke ovens—thus the expense of a fire for the purpose of annealing is saved by the employment of the heat produced by the manufacture of coke; the hinges are packed in boxes, as usual, and then introduced amongst the coal to be made into coke—by which means the hinges will be heated as the process of coking goes on, and will cool down with the coke, and be drawn in an annealed state from the furnace. A fifth improvement relates to the manufacture of the handles of matchet knives, and other instruments having similar handles. It has been usual to form the blades of matchet knives with flat tangs, on each side of which one half of the wooden handle has been placed and rivetted on. The patentee makes the whole handle of metal; that portion which is to form the handle is rolled out to twice the length required for the handle, so as to allow half the piece to be bent over the other side of the tang, and soldered or brazed at the edges; or the handle may be made of two separate or rolled pieces, soldered together.

EXTRAORDINARY SPEED AND POWER OF A LOCOMOTIVE.—The directors of the Great Western, in order to test the power and speed of their leviathan engine (the *Great Western*), prior to being employed on the express trains, directed that an experimental trip should be made for that purpose. Accordingly, a few days since, she was attached to a train consisting of 14 carriages, laden with iron, the total weight of which was 140 tons, exclusive of engine and tender, weighing, with complement of coke and water, about 56 tons. The engine was driven by Mr. Gooch, the superintendent of the locomotive department, and started from Paddington to Swindon, and from thence back, the distance being 77 miles each way. On the journey it was ascertained that she could, with that extraordinary weight, travel at an average speed of 55 miles an hour. Some idea of her velocity may be formed by the distance from Swindon to Didcot, only 24 miles, having been performed at that rate, including the time occupied in starting and stopping. On Monday morning she was despatched with the 9.45 a. m. express train from Paddington to Exeter, 193½ miles, and performed the journey, exclusive of stoppages, in 214 minutes (3 hours 34 minutes), being an average rate of 55¼ per hour. This splendid engine was built at Swindon, upon the plan and under the superintendence of Mr. I. K. Brunel, assisted by Mr. Gooch, the superintendent of locomotives. Her dimensions are as follow:—Diameter of driving wheels, 8 feet; stroke, 24 inches; cylinders, 18 inches; length of boiler, between 15 and 16 feet; weight of engine, without water, 36 tons; weight of tender, without fuel or water, 10 tons; when loaded, 56 tons. It is intended to build several on the same plan, and eight are now building at Swindon.

IMPORTANT DISCOVERY IN THE PERFECTION OF THE PRINCIPLE OF THE ATMOSPHERIC RAILWAY—(*From a Correspondent*).—A gentleman of long standing as a first-rate mechanic, of very great practical experience, and of the highest attainments in chemical science, has just completed a large working model, which he is about to exhibit in the principal towns in England, clearly demonstrating this extraordinary new principle, which does away with the slit or opening in the tube, and, of course, with all the expense, trouble, and loss of power, occasioned by the top valve. This perfection of the application of steam power to locomotion, is attained by electro-magnetism, by means of a curious new metallic compound for the piston, and an equally novel, but most effective, compound to act on the outside of the valve, which at once completely attaches, or rivets it, always opposite the piston, whatever the weight of the train or the speed may be. It also possesses the singular property that its power of attraction increases as the square root of the thickness of the tube.

THE ATMOSPHERIC RAILWAY SYSTEM.—Mr. Brunel, in his examination on the Cornwall Railway Bill, stated that he believed the atmospheric system had answered, commercially and mechanically, and he had no doubt it would be carried out to Plymouth, where, should it succeed, it was probable it would be extended to Cornwall. With respect to the alleged irregularity on the Croydon line, it is stated to be caused by want of power in passing the viaduct at Croydon, which is over a steep ascent, at a point where the atmospheric line is carried across the locomotive: the power is sufficient to propel the train along the line, but not sufficient to carry a heavier train than ordinary over this spot, which is a flying bridge—the scene of those disastrous delays, which the opponents of the system make the most of. We understand a plan is in course of completion, by which increased power will be gained at this spot, through the use of a larger pipe and an expanding piston, which, filling the larger pipe, will increase the power when required, and thus enable a train to ascend gradients which would be too much for the smaller pipe. Mr. Clegg, we understand, is now engaged in experiments, which promise to be successful.

ATMOSPHERIC ENGINE IMPROVEMENTS.—Mr. R. Atha, engineer, of Walton, near Wakefield, has recently patented some improvements in atmospheric engines. The arrangement of apparatus, he proposes, to consist of four or more sails, fixed upon "a stationed supporter," and driven or moved by the power of the wind; two force-pumps are attached to the shaft or fulcrum of the sails, for the purpose of forcing air into a cast-iron box or boxes, termed the main receiver or receivers; each receiver is provided with a safety-valve, to prevent an explosion occurring from the air being too much compressed, and also with a pipe, furnished with a stop-cock; the outer end of the pipe is suitably formed for being attached to another receiver, called a minor receiver, which is fixed upon the frame of a locomotive engine, and connected by a pipe with the working cylinders of the same: the engine is constructed in the same manner as the locomotive engines worked by steam. When the pipe from the main receiver is connected to the minor receiver, the stop-cock is opened, and the air rushes from the former into the latter, which thus becomes filled with compressed air: the stop-stock is then closed, and the pipe released; and the communication between the minor receiver and the cylinders being opened, the engine is put in motion.

MARTIN'S PROPOSED RAILWAY WHEELS.—We have received a communication from our indefatigable correspondent, Mr. A. T. J. Martin, of Penzance, on a new plan of wheels and rails for railways, to which we readily give insertion—although we must candidly state, that we think the plan by no means an improvement, and that the first cost would be enormous, without obtaining corresponding advantages. He proposes a broad flat rail, with an angular ridge running along its centre; the axles of the carriages to have two wheels at each end, one on each side of the ridge, and thus prevent the possibility of running off, except the rail or axle breaks; each wheel is to be separate and independent, and without a flange; and by which plan he considers the friction would be diminished to a mere point, and perfect safety insured.

GLASS BOTTLES.—The rapidity with which glass bottles are made is almost incredible. A workman, with the assistance of a gatherer and blower, will begin and finish 120 dozen of quart bottles in 10 hours, which averages nearly 2½ per minute, and this is ordinarily done; and in some works the men are restricted to two per minute, to prevent the work being slighted. It may not be uninteresting to observe the low price at which this description of glass can be produced, now that the duty has been removed; quart bottles can be produced at the works at about 14s. per gross; each gross weighs 2 cwts., which is equal to 7s. per cwt., or 7*l.* per ton, for manufactured bottles; if from this we deduct for workmen and incidental expenses 2*l.* per ton, it would leave the price of bottle glass 5*l.* per ton.

Mining Correspondence.

ENGLISH MINES.

BARRISTOWN.—May 30.—The eastern end of the 18 fm. level is again driving on the lode; it produces at present between 1½ and 2 tons per fm. The 18 fm. end west produces over 2 tons per fm.; the ends east and west, out of the winze, sunk under the 12 fm. level, produce over 2 tons per fm. We have still branches of the lode in the 24 fm. cross-cut, all of which are mixed with ore. The adit end is very much improved, producing good stones of ore. A branch, about 6 in. wide, in the middle of the lode, lead and gossan; the lode is sparry iron, about 2 ft. wide.—T. ANGOVE.

BEDFORD UNITED.—June 2.—At Wheal Marquis, in the 80 fm. level east, there is no alteration. The lode in the 70 fm. level east is 2 ft. wide, producing good saving work—very kindly. The lode in the stopes, in this level, is still worth 18*l.* per fm. There has been no lode taken down in the 58 fm. level east. At Ding-Dong, the lode in the 24 fm. level west is 3 ft. wide, producing good stones of tin—altogether a strong promising lode. At Wheal Tavistock, in the 47 fm. level, and the 35 fm. level east and west, there is no material alteration; lode very kindly, but not rich. The lode in the south engine-shaft continues its size, 9 ft., and is composed of gossan, iron, and ore. We weighed at Morwelham, on Friday last, April ores, 98 tons 18 cwts., and sampled May ores, computed 90 tons.—J. PHILLIPS.

CALLINGTON.—June 1.—Johnson's engine-shaft is sunk 4 fms. below the 112 fm. level; at this level, driving north, the lode is 1 ft. big, composed of carbonate of iron, intermixed with silver-lead ores; driving south we are opening tribute ground. In the 100 fm. level north we are laying open ground that will set at 9s. in the 1*l.*, on the value of the lead; the south end has been suspended for a short time, the men being put to rise against a winze sinking from the 90, this will open very good tribute ground. In the 90 fm. level, driving north, the lode continues very promising—the back will set at 7s. in the 1*l.*; the same remark will hold good for the south end. In the 80 fm. level, driving north, the lode is producing silver-lead ores. At the north mine, we shall soon be in order to commence driving for an 100 fm. level. In the 90 fm. level south we are opening tribute ground. In the 80 fm. level the lode has not been taken down. In the 70 fm. level the lode is 1 ft. big, composed of mundic and silver-lead ores. The count-house shaft is 6 ft. below the 60 fm. level. We intend sampling to-morrow 93 tons of silver-lead ores.—J. T. PHILLIPS.

CARADON UNITED.—June 3.—We are now down 26 fms. 2 ft. 8 in., and still in the same channel of ground as when I wrote last, with increasing portions of copper ore in depth; some of the pieces we have had this last week full a foot and half diameter, dropping very slowly towards the lode. When we were in killas, our branches dipped south about 1 ft. 6 in. in a fm.; since we have been in the hard granite their dip south is only about 6 in. in a fm., and if we can take the underlay of the lode at the same ratio, since it has taken the primitive rock, it is most likely we shall have much further to drive to cut it than we anticipated when we were in the killas; if so, it will be very much in our favour. We are still driving east on the lode in the adit, and, as we expect we shall meet with a large cross-course in about 3 fms. to the east, I think it proper to drive to intersect it, as we shall come home much faster, and with less expense, than driving through the country. We have now eight miners and four labourers in the shaft, and six miners and two labourers in the adit end; I consider these two points quite sufficient to stick at for the present.—WILLIAM PENROSE.

EAST TAMAR.—June 1.—At Whitsun, at the 46 fm. level south, lode 2 ft. wide—good work; there is a large stream of water issuing out of the lode, which appears getting near the old men's workings. At the 46 fm. level north the lode is 18 in. wide—saving work. At the 36 fm. level north the lode is 1 ft. wide—fluor-spar and ore. At Furzehill, I expect, in the course of a fortnight, if we can get our castings made, we shall put our engine to work. We are opening more tribute ground, which will increase our samplings.—B. ROBINS.

GUNNIS LAKE.—June 2.—At Chilsworthy, the lode in Bailey's engine-shaft (now 8 fms. under the adit level) is 2½ ft. wide, composed of gossan and spar. In the 10 fm. level, east and west of western shaft, the lode is 2 ft. wide, composed of prian, spar, and tin.—W. RICHARDS.

HAWKMOOR.—June 2.—There has been no lode taken down in the winze in the adit level. The lode in the 15 fm. level, east of Hitchins's shaft, continues 3½ ft. wide, producing some saving work.—P. RICHARDS.

HOLMBUSH.—June 2.—We have sunk about 4 fms. through the floor of killas ground in the bottom of Hitchins's shaft; it still continues favourable for sinking. In the 110 fm. level, west of Hitchins's shaft, we have got through the cross-course, and have intersected a small branch of lead and spar, about 3 in. wide; from this circumstance, we expect we are very near the lead lode, and that it is nearer a perpendicular than in the levels above. In the 100 fm. level, west of ditto (on the north part), the lode is 1 ft. wide, and worth 15*l.* per fm.; the lode in the stopes, in the back of this level, is 15 in. wide, and worth 18*l.* per fm. In the 100 fm. level (on the south part) the lode is 15 in. wide, composed of spar, mundic, and spots of ore; at this level, driving south, the lead lode is 5 ft. wide—much the same as last reported. In the same level, driving north, the lead lode is 3 ft. wide, composed of flookan and spar, and ground very soft for driving through. The 100 fm. level, west of Wall's shaft, on the Flapjack lode, is for the present suspended, and the men removed to clear some rubbish left in the 120 fm. level, west of Hitchins's shaft, preparatory to cutting through the great cross-course, which we hope to commence next week. In the 90 fm. level, west of the lead lode (on the north part), the branch we intersected last week is 10 in. wide, composed of spar, mundic, and stones of ore, which we are driving west on; in the same level, driving west (on the south part), the lode is 1 ft. wide, composed of spar, mundic, and stones of ore. In the 90 fm. level south the lead lode is 3 ft. wide, composed of flookan and spar. In the 80 fm. level south the lead lode is 2 ft. wide, composed of flookan and spar. The rise in the back of the 80 fm. level, against Bray's shaft, is hard and poor. In the 62 fm. level south the lead lode is 2 ft. wide, composed principally of flookan. We weighed, at Calstock Quay, on Friday last, April ores, 118 tons 16 cwts. 2 qrs., and sampled May ores, computed 109 tons.—W. LEAN.

LANIVET CONSOLS.—May 28.—Elizabeth shaft has been sunk 1 fm. 4 ft. this past month; we have this day set to cut plat, case (and divide) down the shaft, and prepare for cutting the lode, at the 80 fm. level, for the sum of 20*l.* The 70 end east, on the south part of the lode, has been driven 7 fms. 3 ft. 6 in. through a large and kindly lode—in end about 3 ft. wide, composed of flookan, prian, and ore; the 70 east, in the north part of the lode, is driven about 2 fms.—the leader is about 3 ft. wide, with fine stones of firm yellow ore, and likely to make a good and lasting thing; the 70 west has been driven 4 fms. 3 in.; the lode in the end is about 1½ ft. wide, kindly, with a little ore. The 60 east is driven 1 fm. 9 in.—lode about 3 ft. wide, kindly; we have not yet holed the whim shaft, but hope to do so daily; we are getting on as fast as possible with the crusher and stamps, and hope to get it to work in a short time.

SILVER VALLEY.—June 1.—The south branch, or lode, in the engine-shaft is without any important alteration since last report. The lode in the 30 fm. level west is 2 feet 3 in. wide, producing some good work for tin; the lode in the stopes, in the back of this level, is 2½ ft. wide; 1 ft. on the north part is saving work for tin,—and the south part contains good stones of lead, and spots of copper ore, which is intermixed with capel, spar, and jack; the lode in the winze, sinking below this level, has, in the past week, considerably increased in size, but is not so rich for tin—it is now 3 feet wide, one-half of which we are saving for work; the lode in the eastern end is 2 ft. wide, composed of capel, peach, and spar, very kindly—we hope that, in driving no great distance here, we will meet with a productive lode. The lode in the 20 fm. level west is 2½ ft. wide, very promising. The silver lode in the 40 fm. level, driving east, is 1 foot wide, composed of capel, mundic, and flookan. The western level is cleared 5 fms. from the shaft; the lode is small, composed of flookan. The 30 fm. level west is cleared 4½ fms.; the lode is 1 ft. wide, and looks more promising here than in either of the levels, except the 40 east; in the stopes, in the back of this level, the lode is increasing in size; it is now 1 ft. 6 in. wide, with the south branch, which is 3 in. wide, containing some good spots of grey silver. At Wheal Sisters the adit level is cleared 6 fms. east of the shaft; the lode is 1 ft. 6 in. wide, and still very promising.—S. RICHARDS.

TRELEIGH CONSOLS.—May 29.—At the 100 fm. level, east of Christoe, the lode is 3 ft. wide, with a very kindly appearance—as yet disordered by the cross-course. The 100, west of ditto, will be driven on the cross-course north-west, until we meet with the lode. At the 90, east of ditto, the lode is 2½ ft. wide—worth 16*l.* per fm.; ditto, west of ditto, the lode is small, without mineral, and in disordered ground. The 80 cross-cut south is suspended. At the 90, east of Garden's, having the lode to square down, it cannot be set for a few days; 90, west of ditto, this also as the above; we calculate both these ends worth 20*l.* per fm. At the 80, west of Good Fortune, the lode is 3 ft. wide, with stones of ore. At the 70, west of ditto, the lode is 2½ ft. wide, producing some good ore. At the 60, west of Symons's, the lode is 2 ft. wide, producing a small quantity of ore. At the 50 cross-cut north the ground is much the same; we think, from its appearance, we are not far from the lode. At the winze below the 50 west, the lode is 2 ft. wide, with stones of ore. At the 50, west of ditto, the lode is 3 ft. wide, and worth 12*l.* per fm. The 20, west of ditto, is suspended. At the adit, west of ditto, the lode is 2½ ft. wide, producing good stones of ore. In cutting the bob plat, at the 40 fm. level, at Garden's, this will be set at contract next week—the former contract not having been completed.—W. SYMONS.

TRESAVEAN.—May 26.—The old east shaft is now sinking 7 ft. below the 286 fm. level, in a lode 4 ft.—worth 42*l.* per fathom. The 286 fm. level, driving west of this shaft 11 fathoms; lode in this end 2 ft. big—worth 30*l.* per fathom. The 248 fathom level, west of the old sump shaft, driving in a large lode, which has a promising appearance, and producing some ore. The levels east and west of Harvey's are much the same as two months since. We have no improvement on Caddy's lode since last report. The books will appear much the same the next account as they now stand.—The accounts appeared in last Journal.

TRETHELLAN.—May 26.—The 146 is driven east of sump shaft 12 fms.; lode in this end 6 in. wide, producing good stones of ore. The flat-rod winze, sinking below the 136 fm. level, is down 6 fms.; lode 3 ft. wide, producing some ore, and has a promising appearance. At the 136, driving south, we have about 16 fms. to intersect Magor's lode. The 156 is driven in this sett 7 fms.; lode about 9 in. wide, and has been unproductive. We are now driving south on a cross-course to intersect the south part of the lode; the pitches are not so well as two months since. We expect to raise during the next two months about 200 tons of ore.—The accounts were published in our last Journal.

UNITED HILLS.—June 2.—In the 90 fm. level, eastern end, the lode is 2 ft. wide, good ore; in the western end, ditto. In the 80 fm. level, this rise is communicated to the winze, sunk from the 70 fm. level; the men will now resume driving the 80 east; in the western end, we have put the men belonging to this end to rise against the diagonal shaft, sinking from the 70; the 70 fm. level, in driving south, we have cut the lode, which is producing stones of ore; we shall be enabled to report more fully on it next week, as we have not yet cut through it; west of James's shaft the lode is 2 ft. wide, not producing any ore. No alteration in the diagonal shaft for the past week. In the 60 fm. level, east of eastern shaft, the lode is 2½ ft. wide, 18 in. good ore; west of Harper's winze, orey throughout, of low quality—3 ft. wide; in the stopes, the lode is 2½ ft. wide, 2 ft. ore of fair quality. In the 50 fm. level the ground is much the same for driving as last reported. At Wheal Charles, in the 50 fm. level, the lode is 18 in. wide, producing stones of ore, but not rich. In the 40 fm. level the lode is 20 in. wide, orey throughout, of a coarse quality. At Wheal Sparrow, in the 40 fm. level, the lode is 18 in. wide, poor. In the 30 fm. level the lode is 18 in. wide, coarse in quality.—T. Trevenen. R. Williams.

WEST WHEAL JEWEL.—June 1.—At the 115 fm. level east, on Wheal Jewel lode, the lode is 8 in. wide—unproductive. At the 100 fm. level west, on ditto, the lode is 6 in. wide, composed of spar and spots of yellow ore. At the 85 fm. level west, on ditto, the lode is 1 ft. wide—worth 4*l.* per fm. At the winze sinking below this level, east of little cross-course, the lode is worth 4*l.* per fm. At the 70 fm. level west, on ditto, the lode is 8 in. wide—poor. The ground in the rise, in the back of this level, is much the same as when last reported. At the 12 fm. level east, on the last-mentioned lode, the lode is 15 in. wide, composed of gossan and spar. The ground in the 85 cross-cut south is hard for driving.—S. Lean. R. Johns.

WHEAL AGNES.—The shaftmen have cut a slide [illegible]vides the lode, and brought water into the shaft. I expect we are a[illegible]ough the slide, as the water is going away; as the lode was very good [illegible]ide, I expect it will be the same under. The ground in the adit is very [illegible]rable for driving. I have put four men to open on the back of the lode, 40 fms. further north, which will make 75 fms. from the first pit. I expect to cut the lode soon, as we have found some very promising shode stones, which look very well. We are preparing our dressing floors as fast as possible.—B. Robins.

WHEAL CONCORD.—June 3.—The engine works quite satisfactorily, and the water is in fork at the 31 fm. level; the shaft is secured to the 28 fm. level, and vast progress is making in fixing the plunger-lift. The shaft not being large enough to take the work now putting in, it is necessary to enlarge the same, and put the stuff in the 28 fm. level, to expedite the securing the shaft to have room sufficient for fixing, which stuff can be removed in a day or two. In the 10 fm. level, going east, we have driven through the cross-course, and cut a lode of good ore—a sample of which I have sent you; the lode is about 2 ft. big, 18 in. of which produces good work, worth 20*l.* per fm. In the back of the 12 fm. level, a tribute pitch was set at our last setting day at 10s. in the 1*l.*, which is now looking exceedingly well; the next setting day being Saturday, I have no doubt it will be set at a much lower tribute; I also forward you a sample of this ore. The winze from the 12 to the 20 fm. level, going west, is secured, and I find from the lode now lying on the backs, which is about 35 fms. in length, good work, and I hope to be enabled to set it at a very low tribute; I send you a sample at the back of the 20 fm. level. At our next setting, it is my intention to set two pitches more at the 20 fm. level east, which, you will perceive, from the samples herewith sent, will let at a very low tribute. The plunger-lift will be completed in about a fortnight, when we shall be enabled to fork the water at the 38 fm. level within a week from the working of the plunger; and, from the ore discovered at that level at the last working, I can safely anticipate that tribute pitches will be set at that level at a low rate—the cost of which being much lower to bring to grass, greater access being obtainable. I have now in progress some tons of ore preparing for sampling, and, without an accident, we shall be enabled to secure our monthly samplings sufficient to pay the costs of the mine.—B. Robins.

East Tamar Consols Mining Company.—A special general meeting of adventurers was held at the offices of the company, Old Broad-street, on Thursday, the 4th inst., when a communication was made with reference to the additional ground secured to the adventurers. There was but little business, and, after a conversation and thanks being voted to the chairman, the meeting separated. The additional ground is said to be of high promise, and calculated to enhance the value of the property.

South St. George Mining Company.—At the two-monthly meeting of adventurers, held on the 26th ult., the labour cost for March and April was stated as 482*l.* 1s. 3d.; the merchants' bills, 209*l.* 15s. 10d.—together, 691*l.* 17s. 1d.; which, deducting lords' dues, 18*l.* 12s. 2d., leaves the mine in debt to the purser, 673*l.* 4s. 11d.—A call of 30s. per share was made; and, if the blende, &c., be not sold in a month, there will be a further call of 1*l.* 1s. 9d.—being the division of cost to the mine. There are now 300*l.* worth of ores on the mine, and the agents state, that the lodes never looked better than at present, and, by next account, they hope to cut the east and west and the north and south lodes, at the 40 fm. level, where a discovery is hoped to be made.

Wheal Concord Mining Company.—At a special meeting of shareholders, held in the account-house, at the mine, on the 28th ult., for considering the best mode of dealing with those shares on which calls over due have not been paid, the amount of call required to meet further expenses, the expediency of altering the future management of the mine, and the general business of the company—Mr. John Chowen in the chair.—Present: Messrs. John Chowen, W. Snell, J. P. Osborne, D. Nutt, J. Crofts, J. P. Clapton, J. Toll, E. Snell, S. Perrey, W. Weekes, jun., T. Weekes, jun., Capts. Tabb and Robins, and the Rev. T. M. May. The following resolutions were unanimously agreed to:—That Mr. G. W. Snell, Callington, solicitor, do immediately take such legal proceedings as may be necessary for recovering the arrears of calls now due from several of the shareholders.—That the future management of this mine be vested in a committee of management, who shall meet once in a month, or oftener, if required, in London, and appoint bankers in London to receive the calls.—That a call of 2*l.* per share be made to carry on the works on the mine, until ores can be sold for that purpose; and that such call be paid in such instalments, and at such times, as the committee of management may think proper.—That the following gentlemen form the committee of management:—Messrs. Peter Davey, J. Edwards, W. Pegg, J. Pickering, J. T. Crosthwaite, W. Weeks, W. Snell, and Rev. T. M. May; and that any two of them be sufficient to sign a cheque on the bankers, to be countersigned by the secretary.—That the secretary's salary (Mr. Crofts) be increased to five guineas a month, in consequence of the management being removed to London.—That the purser have the foregoing resolutions printed, and sent to each shareholder.—Thanks were then voted to the chairman for his able conduct in the chair, when the meeting separated.

Wheal Mary Ann Mining Company.—At a meeting of adventurers, held at the White Hart Inn, Liskeard, on Friday, the 29th ult., the accounts of the mine were presented, of which the following is an abstract:—Amount of Dec. costs, 27*l.* 10s. 7d.; Jan., 37*l.* 2s.; Feb., 60*l.* 12s. 5d.; March, 47*l.* 0s. 2d.; April, 91*l.* 2s. 11d.; balance against the company at last meeting (Dec. 16), 123*l.* 6s. 2d.—together, 386*l.* 14s. 3d. By call of 1*l.* per share, made 16th Dec., 244*l.*—leaving balance against the company, 142*l.* 14s. 3d. It was resolved, that the accounts be allowed to pass, and that a call of 1*l.* 10s. per share be made for the future prosecution of the mine.—The following report was read to the meeting:—The engine-shaft is sunk 15 fms. 3 ft. below the surface, which is nearly down to the adit level; this shaft is suspended on account of water, and we are driving a cross-cut at the adit level to get under it, which we expect to hole in about six weeks. The adit level is extended on the course of the lode about 100 fms.; the lode is from 1½ to 3 ft. wide, composed of gossan, quartz, and some stones of lead—altogether a very promising lode. We have also sunk a shaft about 10 fms. south of our northern boundary; and about 5 fms. below the surface, we cut the lode—and have since sunk 4 fms. through a beautiful looking lode, from 2½ to 3 ft. wide, composed of quartz, can, gossan, and lead, and is now worth about 20*l.* per fm., and looking at the prospects, altogether, I have not a doubt but we shall have a good and lasting mine.—P. Clymo. Jun.

[FROM CORRESPONDENTS.]

Bodwannick Mine.—This copper mine adjoins Wheal Mary Mine, in Lanivet, and is upon the same lodes. An adit level has been driven into a killas hill, and is at present at a depth of about 20 fms. from the surface. That level is now being carried south, to intersect the several lodes which have been seen at the adit level in Wheal Mary Mine—such adit being about 13 fms. deep. Some of Wheal Mary lodes have been discovered at the surface in Bodwannick Mine, and costeaning pits are being sunk to find all the lodes, which the cross-cut at the adit in Bodwannick will intersect. Those already seen have a most favourable appearance. In driving west upon any of them, at the adit level, a depth of 36 fms. from the surface will be soon attained; and as the mines in Lanivet have produced much copper ore at less depths than 20 fms., there is great reason to expect the lodes will be productive at the adit level in Bodwannick Mine. The killas is of a very favourable character, and easy for driving.

Drake Walls is still considered a safe and desirable speculation; it appears they are sinking shafts, in order to drive deeper levels, to enable them to work away the backs more expeditiously and economically; and in the meantime, some rich tinstuff will be raised from the upper levels for the market. The machinery on this mine is well worth an inspection.

Carson Consols.—This adventure is getting into favour, and very justly—since there are few speculations which can be purchased so reasonably as this, taking into account the prospects, work done, and advantages to be derived from the abundant water-power. It is expected the lode will be cut at the 24 very soon: it could, in fact, have been reached before, if the vein had not diverged from the western line, towards the south. The 12 fm. west has much improved during the last week.

Silver Valley.—The tin floors here are perfect models, and large quantities of tin are ready to be stamped when the top water is more abundant, unless it is thought desirable to erect a steam-engine for that purpose. The lode is evidently a very strong one, and, from present appearances, is likely to be even more productive in depth. Some of the specimens of native or capillary silver, lately taken from a branch in the south lode, are very beautiful. This ground is situated to the west, and is a continuation of the Wheal Brothers lode, which produced such remarkable quantities of silver ores a few years since; it is also parallel to that part of East Cornwall Mine, which yielded more silver ores than any other in the kingdom, in proportion to the space worked.

Wheal Concord.—This mine is progressing with considerable spirit; some very fine stones of lead are raising by the tributers, and a number of fresh pitches will be taken very shortly. The lode is situated in a beautiful valley,—and the immense quantity of lead, which was taken up during the last hurried working, was found in the centre of the mine, on each side of the cross-course. Taking into account the fact, that the lode has never been properly proved in the different levels, and that there is a rich course of ore, worth (it is said) 25*l.* per fm., now standing in the adjoining mine, only a few fms. from the boundary, there is a strong probability, that the shareholders will be amply remunerated for their outlay. In addition to this it must not be forgotten, that there are several lodes, or branches of the main lode, in the valley, all of which are intersected by various cross-courses; this circumstance being always favourable for an accumulation of ore. Moreover, it is not improbable that the cross veins themselves may contain lead.

West Providence, in the parish of St. Erth, is sunk 35 fms. from the surface without the aid of machinery; they are driving east and west at the 25 and 35 fm. levels; the lode is worked away on tribute, varying from 2s. 6d. to 10s. in the 1*l.*, and the levels east are driving at 5s. 6d. in the 1*l.* The outlay has been 1*l.* 2s. 9d. per 1-256th share, since which they have divided 30s. per share dividend. They have now 12 tons of tin at surface, worth 50*l.* per ton; three months since it would have fetched 58*l.* per ton, and they have at least 1500*l.* worth of tin ground discovered; about 9 tons of copper ore have been sold, averaging 10*l.* per ton. The sett is rather more than a mile in length, and half a mile wide; there runs through it the Kayle lodes, Carpenter, Curboose, and Wheal Providence lodes. These workings are limited, on account of their neighbour, Wheal Providence, from which they will not draw the water without compensation.

West Sheppards Mine.—I am informed by the agent that they have cut the lode in the 20 fm. level, and have a good lode of lead ores, worth 20*l.* per fathom.—P. R.

Wheal Trewenan is situated in the parish of St. Teath, contiguous to, and north of, the Old Treburget Mine; there are three lodes in the sett—two running north and south, which are lead lodes, being 14 and 7 ft. wide; and the third an east and west lode, about 4 ft. wide. It is the general opinion of practical agents, that these lodes are the Old Treburget lodes, which were worked about 20 years since to a great profit; an adit has been driven about 170 fms., and the lodes opened 8 fms. in depth, where a bunch of lead has been discovered. The prospects at present are of sufficient character to recommend an ample outlay to try the sett in depth. It appears that this sett, if annexed to North Treburget, might be worked with great advantages to both mines, as one engine would be enabled to perform the duties—the same lodes running through both setts; and the same appliances to the former could be benefically used by the other: for which reasons a consolidation of the interests have been suggested, and likely to be carried out.

Pennant Lead and Copper Mining Company.—Perhaps no district of similar extent presents a better field for mining enterprise than North Wales: the facilities afforded by the many never-failing streams—the high undulating ground in the mountainous localities—and the geological stratum so favourable to mineral productions—are among the numerous advantages for economical operations that have induced the comparatively few spirited individuals to embark their capital in working those mines which on the aggregate are now become, and becoming, a source of wealthy remuneration to the fortunate adventurers. There is no extent of country (as far as our recollection carries us for the moment) so rich in *lead* especially, as the northern part of the principality; we could, in support of our position, had we time, point out by name a long list of mines which are at the present period making large and profitable returns, a detailed account of which we published about 12 months since. But as our attention has been drawn to this subject, by noticing the prospectus of the Pennant Lead and Copper Mine, in another part of our Journal, our object is merely to state that which we know of the district generally. This sett has been taken up by a highly influential party of adventurers, on the recommendation of experienced mineral surveyors, whose reports are of the most satisfactory character. These mines are situate in a mountainous district, covering an extent of upwards of 900 acres, and contain 22 lodes, more or less opened on; these lodes run through the sett at different points, in several of which large stones of lead and copper ore have been discovered. The indications which present themselves in the most promising ones fully warrant a sufficient outlay, but it appears that the peculiar advantages which they possess, will require but little to bring them into an efficient course of working; the adits which are now being driven, will, on intersection of the lodes, give backs of from 60 to 180 fms. A great stimulus is given to the present company by the wealthy position of the Cowarch Mines, immediately contiguous to these mines, and the same east and west lodes running through both setts, consequently, the most reasonable calculations, according to all mining experience, are, that the lodes so productive in the one will prove so in the other. A powerful and rapid stream of water passes through the entire sett, which, in its course, has exposed the backs of some very fine lodes, and which can be easily rendered applicable to all mining purposes; consequently, do away with the expensive item in mining expenditure—the steam-engine. The sett has been granted on the usual dues in Wales, of 1-10th, for a term of 21 years, renewable from the expiration of that period on payment of a mere nominal fine. We sincerely trust that the adventurers will meet with that reward they anticipate, and thus afford another argument in favour of employing British capital at home, in preference to the ill remuneration of foreign mining.

TRELAWNEY CONSOLS—PRESENT POSITION AND PROSPECTS.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—Having myself an interest in this mine, and having been for many years a practical miner, I have for several months past taken every opportunity of inspecting the underground workings, and noticing the proceedings, with a view to ascertain the probabilities of a return for the capital already expended; and as a general meeting is to take place in a few days, I solicit the favour of your inserting the following report, made from my own observations and experience, for the information of the adventurers:—This mine has been worked by different companies since the year 1810. A deep adit has been driven upwards of 160 fms., on the course of the copper lode, in which several pretty large deposits of copper ore have been discovered and returned; the lode in the back of the level is 3 ft. wide in some places, and at other points 1 ft. to 2 ft., &c.; some copper is now to be seen in the lode, though it is rather poor at present, yet I think it a promising lode. Two winzes have been sunk in the bottom of the adit—the first, or eastern winze, is 12 fms. down, but nothing could be done further at this depth, in consequence of the water; at 7 fms. depth a short level has been driven eastward, in which a branch of ore has been discovered, of which some still remains, for want of mechanical power. There is also a very kindly lode in the end, driven from the other, or western, winze. In this adit Green Valley lead lode has been discovered, but it will be impossible to ascertain its quality, until more labour is devoted to this point to clear the attle and secure the level; this lead lode has heaved the copper lode about 6 fms. south. The copper lode is driven about 9 ft. west of the lead lode; it is small in the end, and though only a foot wide and poor, its composition leads me to think it not an unkindly lode. George and Charlotte Mine is situate in the opposite hill, in which an adit level has been driven upwards of 30 fms., with only a wall to divide the two distinct strata, or country; a course of copper ore has lately been discovered 3 ft. wide: this lode runs through Trelawney Consols sett, and crosses the adit, where it is neither large or good, though there is every probability of its becoming as good as it is here. The lead lode of Tuckingmash runs through this sett, and also the celebrated rich lead lode at Hooton lately discovered, and now working by J. Hutchings, Esq. During the last three months the men have been employed shoding in search of lodes; at about 100 fms. from the north boundary of the sett they have discovered a very kindly lode, being about 3 ft. wide, composed of horn spar, sugary spar, white iron, and some very beautiful brown and yellow gossan; it takes a south-east and north-west direction; a shaft has been sunk about 4 fms., but the water is so quick that it will not be possible to go deeper by manual labour. Another lode has been discovered about 50 fms. further south, running within 10 points of due north and south; a shaft has also been sunk on it about 4 fms. down; it is already 9 ft. wide, and one wall only seen yet; it is composed of a sparry gossan, with a regular flookan in the middle of it, about a foot wide, and is not without mundic, and some particles of lead: they are still shoding, and expect soon to cut another copper lode. From the fact of these several promising lodes being already laid open, the prosperous mines around us, and as the rich lodes at a short distance must run through this sett, I think that unless the adventurers fulfil their engagement, and erect a steam-engine without delay, we shall not do justice to the mine or ourselves.—A Shareholder: *Tavistock, June* 2.

PLYMOUTH MINING DISTRICT—LOCAL IMPROVEMENTS.

Sir,—A meeting has lately been held, on Dartmoor, of parties interested in the improvement of that district, presided over by Mr. Frean, and noticed in the *Plymouth Times*, a fortnight since, which induces me to trouble you with the following remarks, to shew that the neighbourhood is advancing—if not with railway pace, that at least an effort is making to "go a-head"—affording ground for entertaining the hope, that Plymouth will, ere long, take the rank her commanding situation naturally points to—the emporium of the west. Manufactories are increasing; railroads will open the interior, and develope the natural resources of our mineral capabilities; whilst our rivers, extending far into the country, aided by the splendid Government establishments, will speedily bring about the so much wished for consummation. Whilst the gentleman referred to, is diligently employed in reclaiming and improving the neglectful soil of Dartmoor, the "British Patent Naptha Company" have taken a lease of the premises formerly occupied as prisons of war on the Moor, for the purposes of bringing into profitable use the long dormant peat, in the production of naptha, camphine, ammonia, and other products contained in it. The mineral resources of the Moor are also being brought into play by several researches for tin; the principal one, Birch Tor, is fast reaching a point that will give her the position of a lasting and profitable mine. This mine was bought about 12 months since by a respectable company here; it was then in a very dilapidated state in the machinery, as well as the underground workings: since then it has been opened, new pumps placed to the 50 fm. level; others provided to go 10 fms. deeper, and also sufficient provided to place in another shaft intended to be sunk the same depth, for that purpose, and to draw the stuff to the surface; a new wheel, 35 ft. in diameter, is in the course of erection, several pitches are let on tribute, and more are waiting the ventilation of the 40 fm. level, for which purpose a winze is sinking under it to the 50. The returns of tin have been increasing, and are now nearly equal to the amount of the cost of the mine. The machinery is very effective, and worked by ample water power, consisting of one 40 ft. wheel, to pump water; another of the same diameter; one of 24 ft., and one of 16 ft., working 39 heads of stamps returning tin—giving the affair a very business-like appearance.

In the district adjoining the Moor, Wheal Friendship still continues as productive as ever, and several new mines are opening. West Wheal Friendship, presumed to be on the same run of lodes, stands well—one lode has been cut 10 ft. wide of mundic; and, as mundic rides a good horse, great expectation is formed of copper in depth; the level is driving to cut the main lode, from which the miners are at no great distance.

In the Calstock district, at Harrowbarrow Old Mine, the engine is now at work; the shaft sinking to intersect two copper lodes, which, from their underlie, are expected to form a junction about 7 fms. deeper; nearly all the backs of these lodes have been taken away—a proof, even if the Duchy records did not prove by the amount of dues paid, that the produce has been large. The prospect for copper is highly encouraging; and, independent of this, there is a tin lode in the north part of the sett, to which an adit, 400 to 500 fms. long, has been driven, where it has been cut to 40 fms deep; this lode, as seen in the end, is said to be worth over 20*l.* per fm. Harrowbarrow Consols, east of the Old Mine, has a continuation of the same lodes. Much work has been done here; the adventurers are waiting the result of sinking the shaft to the junction of the lodes before-mentioned; and proposals, it is said, have been made to work the tin lode jointly between both the setts. To the north-west of the Consols is "Wheal Calstock," in connection with which a company is now forming, and mining men speak well of the prospects; 9 or 10 copper lodes have been seen at surface—one, a large gossan lode, will shortly have a fair trial. This ground can be drained near 60 fms. deep by an adit level, already driven very near the borders of this sett.

West of the last is Trelawney Consols, embracing Calstock town and the land adjoining; here the ground is now shoding, four lodes have been laid open, and there are several more lodes there is no doubt, as all the lodes seen in Wheal Calstock must run into it. An adit level is driven into this sett nearly 300 fms. long, to drain the ground 50 to 60 fms. deep; some of the Beeralston lead lodes form the cross-courses to the copper lodes. Drake Walls, higher up the river, is a tin mine, which, after having been many years productive, has now, for the first time, an engine erected on her; this, however, is now in full work, and the mine is producing considerable quantities of tin. Gunnis Lake is again in progress. Bedford United, near New Bridge, embraces several setts, returning about 100 tons copper ore per month. At Wheal Maria, the produce is on the increase; 1658 tons of copper ore were advertised for sale on the 21st inst. There are several other adventures in this locality, where the reports are favourable, but no actual result obtained.

On the Tamar and the Tavy, there is pretty much doing. At Crebor Consols, a 24 fm. level is driving to cut a lode south of one which produced very large quantities of copper ore some 25 years since: it has been cut in an upper level, and good expectations are entertained of it. The George and Charlotte, extending from Morwelham, on the Tamar, to the Tavy, possesses a very large and promising sett, and a good course of yellow copper ore has been driven through in the adit several fms. long, from which upwards of 20 tons have been raised: the back and bottom of the level are good: this is expected to make a good mine. Devon and Courtney Consols is preparing for a steam-engine: the adit level has had some good branches or ore in it, and is continuing towards a large gossan some distance a-head. Tavy Consols is well spoken of, but not much work has yet been done; there is, however, some good copper ore in the adit level. To the south-east of Tavistock, on Plaster Down, there is a large gossan lode 10 or 12 ft. big, with tin nearly all through it—a good indication for copper below; the work is confined at present to driving on the lode in the adit level, at 12 fms. deep, waiting the result of discoveries at Wh. Ash, on the same lode, where the shaft is rapidly sinking, to try the lode in depth; this lode is reported to be one of no ordinary promise; the adit level will intersect it at some depth, and drain the surface. At Wheal Anderton they are driving to cut the lode in the 50 fm. level. East Crown Dale is waiting the erection of a steam-engine. North Wheal Robert is still raising some ore in extending the levels. Wheal Franco is going on steadily, and is improving. Many pitches are working on tribute; the produce of the ore is much higher than at the latter end of the past year. There is now the best course of ore in the bottom (32 fm.) level that has yet been seen in the mine; this looks well for the future. The last monthly sampling was 115 tons, worth at least 600*l.* Plymouth Wheal Yeoland still continues a favourite with the shareholders; a deep adit is driving to cut a tin lode; there are some fms. still to drive; it is expected to be cut by Midsummer—small branches or strings of ore are constantly met with in the course of driving. A Plymouthian.

Plymouth, May 29.

MINERS' CLUB.

TO THE EDITOR OF THE WEST BRITON.

Sir,—I am happy to see my suggestions on this subject supported in your last number [also in last week's *Mining Journal*] by "A Miner." A letter which so strikingly sets forth the hardships of his fellows, will, I trust, be followed up by others of a similar character. Being myself but very little connected with mines, my object is to induce gentlemen much interested therein, whether lords or adventurers, to come forward and aid in establishing an important benefit society for the men. They would, in so doing, at the same time justly secure for themselves all the credit to be derived from rendering such an essential service to Cornish miners. The first step in the matter would be, I conceive, for some influential individuals in the great mining district to meet and issue brief proposals on the principles indicated in my former letter. Companies of adventurers would then, where so disposed, signify their adhesion to such proposals, or would require modifications, offer suggestions, &c. When any considerable number of miners had signified their general approbation of the scheme, a committee would be appointed to investigate the details of the subject and any matters connected therewith, and to report thereon to a public meeting, or otherwise. The machinery of the club would remain as at present—necessary additions only being made. Thus, a purser would be treasurer—a mine clerk would act as secretary—a committee for a district of one or more mines would be formed of working miners and others—stewards would be appointed for each district, &c. Your correspondent appears fully sensible of the importance of providing annuities for the men after a certain age, and this should certainly form a leading part of the plan.

The hard conditions for themselves, but highly favourable to their employers, under which Cornish miners work, give them an especial claim to consideration. In no mining district is labour so cheaply paid as in Cornwall—no striking for wages is known, the work being chiefly job-work, and the men themselves—by a singular system—fixing the price low by competition; so few facilities are afforded for descending and ascending the shafts, that the labour is almost doubled thereby; the men are paid, on the whole, not oftener than monthly—a very serious practical deduction from their wages; from this and other causes they cannot avoid dealing at the "tommy shops," and thus are subjected to the evils of the truck system. Such are some of the peculiar hardships of the Cornish miner, and yet does he serve his employer well. Men, then, who, under these disadvantageous circumstances (in addition to the ordinary evils of their calling), do thus benefit their employers, are surely entitled to their greatest consideration, as well as to that of the Cornish public, among whom these miners cause so much wealth to be circulated. Without the miner and their adjuncts, in what sort of a position should we be? Such a club as I have suggested, would, at some period of his life, benefit nearly every working miner in Cornwall. Let us hope, then, that "one and all" will heartily join forwarding its establishment.—John Paynter: *May* 25.

Visit of the Duke of Leeds to Wheal Prosper Mine.—On Thursday, last, the Duke of Leeds, accompanied by his Duchess, honoured Wheal Prosper with a visit. Thousands of individuals assembled to express their gratification, at seeing the illustrious visitors, by loud huzzas; and tea and cake were bountifully distributed on the occasion to nearly 200 women and their children. After tea, about 300 men sat down, who were regaled with potatoes of ale and porter, when they did not forget to drink "long life and happiness" to their distinguished visitors.

TESTIMONIAL TO MR. NEILSON.—A subscription having been raised, and a committee of gentlemen appointed, to superintend the completion of a testimonial to the inventor of the application of the hot blast in the smelting of iron, they intrusted its execution to Mr. Gray, of Glasgow, who immediately applied to Mr. Baillie, the eminent sculptor, for a design, and the work is now complete, and does infinite credit, both to the designer and manufacturer. It is executed in silver, and represents a column rising from a base of rock work, which presents three angles, at each of which is a figure—Æolus in the act of unbinding the winds; Prometheus with the lighted torch just snatched from heaven; and Vulcan reposing from the work of forging a helmet. The column, half way up, is divided into three compartments by foliage—one containing the arms of Mr. Neilson, another the inscription, and the third Britannia placing a wreath on the head of Science; the whole is surmounted by a figure of Minerva, holding in one hand a spear, in the other an allegorical figure of Victory; and is a splendid triumph of modern art.

ST. AUSTELL DISTRICT, IN CORNWALL.—There are three principal mining districts in Cornwall—viz., Penzance, Redruth, and St. Austell. In the latter are valuable works of China clay, granite, and ochre, lead and silver mines, iron mines, two iron foundries, and a naptha work. On 13 square miles, embracing these works, there are 36,863 inhabitants; in St. Austell alone, 10,197, there are 56 mines, producing, in 1844, 39,858 tons of ore, of the value of 151,900*l.* —44 china, clay, and stone works, producing, in 1845, 61,000*l.*; the total value of all the produce, in 1845, was 254,000*l.* In that year there cleared out from the port of Fowey 1269 vessels, of 82,800 tons, and there entered 996 vessels, of a tonnage equal to 54,500 tons.

WHEAL VOR MINING COMPANY.—A meeting of adventurers was held, on Friday, the 29th ult., when a resolution was entered into, to abandon the further working of the mine below the 115 fm. level. A day or two afterwards, however, a rich branch of a lode was discovered at the 236 fm. level, and which gradually rises; it has, therefore, subsequently been decided on working the mine to this latter depth, so long as the present prospects continue: the lode is about 8 in. big, and exceedingly rich.

THE SALT MINES OF ALGERIA.—We have, on several occasions, reverted to the monopoly exercised by the French Government with respect to salt, and the reported discovery of salt mines in Algeria appears at length to have induced them to concede a little, and trifling, indeed, it is, and not to be appreciated by private consumers, the trading portion of the community, or the agriculturist. The monopoly, however, in the hands of the Crown is too tempting to be easily given up, and the general high prices will be obtained, as well as on the continent generally. It is believed the Government will work these mines on its own account, similar to the company holding a similar monopoly in the East Indies. The Industrial Society of Malhousen has addressed a spirited petition to the Chamber of Peers on the subject: they set forth the great importance which salt is to agriculture and manufactures, particularly in bleaching, and printing woollen and cotton goods. For the manufacture of soda, salt has hitherto been free from duty, but it is now the intention to impose a tax of 8*s.* 4*d.* per 200 lbs. In one manufactory, where 54,000 pieces of cotton stuffs are produced, they employ in bleaching 132,000 lbs. of soda, requiring for its produce 127,160 lbs. of salt; besides this, there is the cost of its production, and this tax will impose on such a manufacture a further charge of above 250*l.*, or at the rate of 1½d. per piece of stuff. In the department of the Upper Rhine alone (a small portion of the whole of France), there are 25 establishments, employing annually in bleaching 3,600,000 lbs. of salt—consequently, the new law will impose an additional tax of 7200*l.* per annum. It further sets forth that the exportation of cotton goods from France is already on the decline, and that this measure will be most fatal, and that they cannot contend against foreign countries, particularly England. It is to be hoped that the Chamber of Peers will not be deaf to this appeal, and that next session a great modification will take place in this obnoxious tax upon so important an auxiliary to the commercial prosperity and well being of every country; as since the duty has been repealed on the production of salt in the United Kingdom, our trade has rapidly increased by more than 50 per cent. in exports to India, Hong-Kong, China, and other parts of the globe—our fisheries have improved to an astonishing extent, as well as the curing of fish and meat for exportation—agriculture and manufactures have derived the greatest advantage from it, and, to an equal extent, the population at large.

FOREIGN GRANITE.—Within these few days 31 vessels have arrived in the river from the island of Guernsey, laden entirely with granite, the production of the place, having on board together 4958 tons in a broken state, and 88 tons of the same description of stone in a dressed state—14 vessels have arrived here also in the same time from Caen in Normandy, laden with granite in blocks entire, having collectively 609 tons of the article on board. It is understood that this granite, being in a broken state, is imported principally for the purpose of being used as kerb stones, and for the general purposes of paving and repairing roads, the blocks being made use of for other and more important purposes.

BRITISH AND AMERICAN RAILWAYS.—The three longest lines in the United States—the South Carolina, carried almost entirely on piles—of 135 miles in length; the Central, 193 miles; and the Alabama, Florida, and Georgia, 156 miles, have been constructed; the first at an average cost of 2600*l.* per mile, the second at 2400*l.*, and the third at 3200*l.* Although, from the high price of land in England, apart from any other consideration, we could never hope to rival the cheapness of the trans-Atlantic estimates: still it is startling to compare with the 1000*l.* or 2000*l.* per mile of the American lines the expense of some of our own. We will put aside the 170,000*l.* per mile of the Greenwich Railway, as spent under peculiar circumstances, and such as are not likely to occur again. But the works of the Croydon Railway, carried through a district tolerably level, cost above 70,000*l.* per mile. The expense of the bridges alone, for a distance of 10 miles, was nearly 45,000*l.* The original estimate for the Brighton Railway, made by most competent judges, and examined by Mr. Locke, was somewhat above 28,000*l.* per mile; the railway ended by costing 400,000*l.*

THE CROYDON ATMOSPHERIC.—The atmospheric trains have been, we understand, stopped, owing to the radiation of the intense heat upon the waxen composition that seals the tube, so liquifying the material as to render it impossible to form a vacuum. The trains are now worked by locomotive power, and fresh composition is in process of preparation, by which it is hoped to obviate the difficulty, which has not yet occurred upon the Dalkey line, now some two years in operation. The occurrence is attributed to imperfections in the nature of the sealing composition. It is proposed, so as to obviate a recurrence of the kind, to place the tube in the earth; but here it may be objected that the gravel might get into it, and so impede the fair play of the piston.

SOUTH DEVON.—The South Devon line of railway from Exeter to Teignmouth was opened to the public on Saturday last. The railway consists of a single line of rail only, and is intended to be worked on the atmospheric principle; as, however, the apparatus is not quite complete, it is worked for the present by locomotives.

RAILWAY TRAFFIC.—From our official returns, it appears that the amount of traffic for the last week, on nearly 1800 miles of railway, was 142,680*l.*, thus accounted for:—79,252*l.* for the conveyance of passengers only, 35,030*l.* for the carriage of goods, and a remainder of 28,398*l.* for passengers and goods together, not respectively apportioned; being an increase over the corresponding week of last year of 17,518*l.*—*Railway Chronicle* of this day.

FIRE INSURANCE.—From a return just issued by order of the House of Commons, relative to fire insurances, it appears that the following are the sums insured in the fire offices in England in farming stock, exempt from duty, for the different quarters in 1845. In the quarter ending March 25, 15,931,660*l.* ending June 24, 5,299,403*l.*; ending September 25, 7,880,761*l.*; and ending December 25, 26,746,813*l.*—Total, 55,858,637*l.*

THE DUKE OF NORTHUMBERLAND'S TILE MANUFACTORY.—The Duke of Northumberland's tilework, in the vicinity of Belford, is in active operation. The buildings have been reconstructed 200 yards westward of their former site, where they have the advantage of freer air. This establishment, we understand, should turn out a million tiles in the season. With Etheredge's patent machine, so beautiful and quiet in its movements, Mr. William Sibbald, foreman under Mr. Hall, tile-maker of Alnwick, is now making 8000 tiles, equal to 4000 tiles and 4000 soles a day. The drying shades are calculated to hold 38,000 tiles; and the two kilns, when finished, will contain 20,000 each. Visitors may also see Mr John Sibbald at this establishment, when he exerts himself, turn out with the hand no less than nine bricks in a minute. This tilework must prove of immense advantage to the duke's tenants in the district.—*Ber. Ward.*

MINE ACCIDENTS.

Wheal Ruby, St. Austell.—W. Hore was killed by a fall of earth.

Treswean Mine.—S. Carbis was severely injured by a premature blast.

Wheal Gorland.—As P. Richards, the captain of the mine, was crossing a level shaft on a plank, the board broke, and precipitated him a depth of 26 fms., causing instant death. He was accompanied by his son, who fortunately escaped.

Wheal Prosper.—J. Bawden, aged 18, was killed here by a fall of stone.

United Mines.—W. Francis was seriously hurt by the falling away of a rock.

Heawell Colliery.—R. Wolfe (aged 12 years) was killed while working here.

Little Lever, near Bolton, Lancashire.—T. Fletcher (aged 14 years) was killed by a fall of coal, while working in a colliery belonging to Messrs. Knowles.

Mostyn Colliery.—A dreadful explosion took place here, arising from fire damp: the explosion occurred in the two yards vein of coal, within about 25 yards of the shaft, 150 yards from the surface, where five men and boys were considerably burnt, and one horse and five men hurt by the blast. There are two steam-engines working underground, the boiler was rather out of repair in one engine, about 450 yards from the shaft, and boiler-makers went to repair it, leaving one of the doors open, where there is 4375 cubic feet per minute of air. When the door was open, that quantity of air went into the old workings of the Durbog vein of coal, and drove out the sulphur into the bottom of the pit. About seven men went through the place where the explosion took place, but they saw no fire damp, and went with their naked candles; when, however, they saw the door open, they, of course, shut it. About 10 minutes afterwards the other men were passing, and the air was going its proper course, drawing the large body of sulphur upon the men near the shaft.

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning, Twelve o'clock.

Bank Stock, 7 per Cent., 205¾ 6½
3 per Cent. Reduced Ann., 95¾ ⅞
3 per Cent. Consols Ann., 96⅛ 7 6½
3 per Cent. Annuities, —
3½ per Cent. Ann., 97⅛ ⅜ ⅝
Long Annuities, 10⅝
India Stock, 10½ per Cent., 264
3 per Cent. Consols for Acc., 97⅛ 7
Exchequer Bills, 1600*l.*, 90 47 pm.

Belgian Bonds, 4½ per Cents., —
Dutch, 2½ per Cent., 60¾ 59¾
Brazilian, 5 per Cents., 84¾ 2½
Chilian, 3 per Cents., 50½
Mexican, 5 per Cents., 30½ 29½
Spanish, 5 per Cents., 24½
Ditto Deferred, 15½
Portuguese, 4 per Cents., 53 51
Russian, 5 per Cents., 110½

MINES.—A little more animation has been manifest in the mining share market since our last. The improvements which have taken place in several mines, have created inquiries after the shares, although not much business has been transacted: among those which have changed hands we may name Lamerhooes, Wheal Mary Ann, West Wheal Maria, George and Charlotte, Stray Park, Andrew and Nangiles, Wheal Concord, Wheal Agnes, Wheal Walter, Trewollack, Bedford United, Fortescue, Tamar Consols.

RAILWAYS.—Transactions in railway shares have continued very limited; prices have remained nearly at previous rates, and there are many scrip shares in which the jobbers will not deal on any terms. Towards the end of the week business remained very quiet; but prices had not given way. Some of the shares of old dividend paying lines have changed hands at quotations, but in many quarters there is a disinclination to purchase, from an impression, which is gaining ground, that Parliament will shortly interfere effectually to stop the too rapid progress of the proposed lines, and reduce the number of the schemes. In the Parliamentary committees little has been done during the week, and we believe the only decision come to is on the Oxford, Worcester, and Wolverhampton Line, which has passed the committee of the House of Lords.

MEETINGS.—The following meetings, under sessional orders, have been held during the week:—London and York: an important meeting of the shareholders was held on Saturday last, when it was decided unanimously by the representatives of 78,000 shares to proceed with the undertaking, and to amalgamate with the Direct Northern, by which the expenses would be considerably decreased.—Exeter, Yeovil, and Dorchester: 15,406 scrip represented, and resolved unanimously to proceed.—West Riding Union: more than double the necessary amount of capital present, and motion to proceed carried without a dissentient.—Irish Great Western: 15,793 in favour of proceeding, and 500 dissentients; the whole number of shares being 27,000.—Midland and Eastern Counties: majority of assents, 1300.—London, Salisbury, and Yeovil: resolution for proceeding carried unanimously.—Direct Northern: 100,000 scrip represented, being double the amount required, and they were unanimous in favour of amalgamation with the London and York.—Manchester and Leeds: unanimous approval of 18 bills for branches and extensions.—Taff Vale: resolutions for 18 miles of branches, and leasing a portion of the Brill Docks, passed unanimously.—Caledonian Extension: majority for proceeding 20,207.—Edinburgh and Northern: a meeting of the holders of the Leslie, Leven, and Lochgelly scrip, decided to wind up, and 27*s.* per share is to be returned.—Axholme, Gainsborough, and Goole: present 200,000*l.* of the capital, and unanimous for proceeding with the undertaking.—South Wales: in favour of proceeding 1,289,250*l.*, and against 3250*l.*—Taw Vale extension: majority in favour of proceeding, 10,715.—Guildford, Chichester, Fareham, and Portsmouth: unanimous for proceeding with bill.—Waveney Valley: the meeting agreed to a petition, praying for the recommitment of this bill, which was thrown out of committee.—Wexford, Waterford, and Valentia: yesterday, to receive a report from the directors respecting Valentia harbour: a resolution was unanimously passed, to withdraw the bill for the present session.—Great Munster: yesterday, when it appeared the expenses to the present time were 16,618*l.*, and would nearly absorb the disposable capital; it was resolved, by a majority of 3745 shares to 655, not to proceed with the undertaking.

MESSRS. LAMOND'S SALES—TUESDAY.—Leicester and Bedford (1*l.* 2*s.* pd.), 1*l.* 6*s.* 6*d.* Goole and Doncaster (5*l.* 2*s.*), 1*l.* 10*s.*; Exeter, Yeovil, and Dorset (2*l.* 15*s.*), 1*l.* 19*s.*; South Midland (2*l.* 2*s.*), 1*l.* 9*s.* 6*d.*; Welsh Midland (2*l.* 10*s.*), 1*l.* 2*s.* 6*d.*; Buckinghamshire (2*l.* 2*s.*), 2*l.* 3*s.*; Jamaica South Midland (1*l.*), 17*s.* 6*d.*; Dublin and Galway (4*l.*), 2*l.* 15*s.*; Shrewsbury and Birmingham (2*l.* 10*s.*), 2*l.* 16*s.* 6*d.*; Great Luxembourg (4*l.*), 1*l.* 18*s.*; Guildford, Fareham, and Portsmouth (5*l.*), 4*l.* 6*s.*; Ipswich and Bury—Norwich Extension (2*l.* 10*s.*), 2*l.* 5*s.*; North Kent (2*l.* 10*s.*), 1*l.* 7*s.* 6*d.*; Birkenhead, Lancashire, and Chester (2*l.* 15*s.*), 3*l.* 15*s.*; London and York (2*l.* 10*s.*), 2*l.* 5*s.*

FRIDAY.—Vale of Neath (2*l.*), 1*l.* 9*s.* 6*d.*; Paris and Lyons (5*l.*), 6*l.* 3*s.*; London and South Essex (2*l.* 15*s.*), 1*l.* 10*s.*; Norfolk Extension (2*l.*), 1*l.* 12*s.* 6*d.*; Eastern Counties—York Extension (10*s.*), 1*l.* 2*s.* 6*d.*; London and Manchester—Rastrick's (5*l.* 5*s.*), 3*l.* 13*s.*; Northampton, Bedford, and Cambridge (2*l.* 2*s.*), 1*l.* 5*s.*; Bordeaux, Toulouse, and Cette (2*l.*), 1*l.* 17*s.* 6*d.*; East Indian (5*s.*), 15*s.* 6*d.*; South Midland (2*l.* 2*s.*), 1*l.* 9*s.* 6*d.*; Derby, Uttoxeter, and Stafford (2*l.* 12*s.* 6*d.*), 1*l.* 13*s.* 6*d.*; North Staffordshire, Churnet, and Potteries (2*l.* 2*s.*), 5*l.* 18*s.* 6*d.*; Paris and Lyons (5*l.*), 6*l.* 2*s.*; Direct Northern (2*l.* 10*s.*), 1*l.* 14*s.*

LEEDS, FRIDAY.—As we expected, the corn bill passed its second reading in the Lords by a large majority. The good effects which were anticipated from this circumstance, have hitherto been neutralised by the unfavourable intelligence from the United States, respecting the war with Mexico. Since the opening of our Exchange, very little business has been done—prices remaining almost without alteration, and speculators evincing little disposition to operate either way. R. B. WATSON, TOOTAL, & BARFF.

IRISH STOCKS, RAILWAY SHARES, &c.—3 per Cent. Consols, 95½*l.*; 3½ per Cent. Stock, 97¼*l.*; 3 p. Ct. Reduced, —*l.*; 4 per Cent. City Debentures, 394*l.*; Bank Stk., 209*l.* —Belfast and County Down Railway, 1¼. Cork and Passage, ¾*l.*; Great County Down, Belfast, Newry, &c., ¼*l.*; Great Southern and Western, —*l.*; Irish Great Western (Dublin to Galway), ¾*l.*; Dublin & Belfast Exten., —*l.*; Dublin & Drogheda, 73*l.*; Dublin, Belfast, and Coleraine Junction, 6¾*l.*; Dublin & Sandymount, —*l.*; Irish North Midland, ¼*l.*; Killarney Junction, ¼*l.*; Newry, Warrenpoint, and Rostrevor, ¼*l.*—Mining Co. of Ireland, 12¼*l.*; General Mining Co. of Ireland, ¼*l.*; Dublin and Kingstown Coal Con. Co., ¾*l.*; Wicklow Copper Mine, 16½*l.*—Hibernian Bank, 29½*l.*—Royal Bank, 12¼*l.*

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Cragwood Hartley 12 6—Carr's Hartley 14 6—Chester Main 13—Dean's Primrose 13—Hastings' Hartley 14 6—Holywell Main 14 9—New Tanfield 13—Original Tanfield 12 6—Ord's Redheugh 13—Ravensworth's West Hartley 14 3—Taylor's West Hartley 14—Tanfield Moor 15—West Hartley 14 6—West Wylam 14—Eden Main 14—Cowpen Hartley 14 6—Lessingthorne 12—Ramsay's Garesfield Coke 20 6—Sidney's Hartley 14 6—South Durham Coke 20 6—West Hartley Netherton 14 3—Wall's End Bewicke and Co. 13 9—Hebburn 12 6—Killingworth 13 3—Wreckington 12—Braddyll's Hetton 14 6—Hetton 15—Lambton 14 6—Morrison 13 6—Russell's Hetton 14 3—Stewart's 15—Heugh Hall 13 6—Adelaide 14 6—South Durham 13.—Ships, 104; sold, 57; unsold, 47.

WEDNESDAY.—Chester Main 13—Davison's West Hartley 14 3—Hastings' Hartley 14 6—Holywell Main 14 9—New Tanfield 13—Original Tanfield 12 6—Ord's Redheugh 13—Taylor's West Hartley 13 6—Tanfield Moor Bute's 13—Townley 13 6—West Wylam 14—Wylam 13 9—Eden Main 14—Cowpen Hartley 14 6—Derwentwater Hartley 14—Sidney's Hartley 14 6—West Hartley Netherton 14—Wall's End Killingworth 13 3—Urpeth 13 6—Braddyll's Hetton 14 6—East Hetton 13 3—Haswell 15 6—Hetton 15—Lambton 14 9—Morrison 13 6—Russell's Hetton 14 3—High Main 13 3—Hartlepool 15—Heugh Hall 13 6—Kelloe 14 6—Thornley 14—Brown's Deanery 13 9—West Cornforth 13 3.—Ships at market, 84; sold, 51; unsold, 33.

FRIDAY.—Chester Main 13—Davison's West Hartley 15—Dean's Primrose 13—Hastings' Hartley 14 6—Eden Main 14—Sidney's Hartley 14 6—Wall's End Gibson 12 6—Hilda 13 6—Killingworth 13 3—Braddyll's Hetton 14 9—Hetton 15 3—Brown's Deanery 13 9—Seymour Tees 13 6.—Ships at market, 47; sold, 25; unsold, 22.

LITERARY NOTICES.

The Railway Register, and Record of Engineering and Public Enterprise. London: Office, Basinghall-street; and John Weale, High Holborn.

We have received the June Number of this standard railway publication; and, if not of quite so bulky a nature as in the palmy days of the railway mania, from six to nine months since, it fully supports its character in the *quality* of the articles it contains for the edification of its readers. We observe, from a notice at the commencement of the volume, that the *Register* is now the property of Mr. Hyde Clarke; and in which he states, that it is his intention to publish a complete series of prospectuses of railway and other undertakings; and that the *Railway Portfolio*—a work originally intended for such particular purpose—has been purchased, and will in future be incorporated with the *Register*. He has many promises of support and assistance in the undertaking, which will comprise the prospectuses of public undertakings, from the last century to the present, and will form a work of curious, interesting, and useful reference. Among the articles in the present Number is one on the North Kent Railways, with a map; and one by Mr. Smith, C.E., of Toronto, on Atmospheric Propulsion, well worthy perusal.

Road Reform: A Plan for abolishing Turnpike Tolls, and providing Funds necessary for the Public Roads, by an Annual Rate on Horses. By W. PAGAN, writer. Blackwood and Sons, Edinburgh and London.

We have received a pamphlet, under the above title, which is an abridged edition of a publication of last year, which was well received by that portion of the public interested. It relates solely to the present state and future prospects of the roads in Scotland; and as, on the development of the railways, a great change must take place in the nature of the trusts, he proposes a change, which the above title partially explains. We have not been able to go sufficiently into the merits of the work to review it; but, from a hasty glance, we see enough to convince us that the author well understands his subject.

Reports, Minutes, and Dispatches, on the British Position and Prospects in China. By A. M. MARTIN, Esq.

The work before us is from the pen of Mr. Montgomery Martin, whose extraordinary diligence and industry in the obtaining and disseminating correct knowledge of our colonial possessions, and whose correct views and general information thereon has often been publicly recorded. Having been selected for official duties in China, and impressed with the view that a field of observation, of great magnitude and importance, was open to him, he broke up his arrangements in this country, proceeded to China, and devoted all his energies to the examination of the financial and commercial interests, connected with a position which he truly describes "as unprecedented in the history of any age or country." Mr. Martin enters into a complete history of Hong, Kong and Chusan, and draws a comparison between the two places, by no means complimentary to the sagacity of the parties who made the selection of the former. The volume is full of copies of important official documents, as well as interesting anecdotes, and extracts from popular works, and at this moment will be read with considerable interest.

A letter from Montreal, dated May 13, states that several copper mining speculations are afloat, and that a large party of miners, employed by an extensive Montreal company, had left with Sir George Simpson, governor of the Hudson's Bay Company, a few days previous, for Lake Superior, on whose shores rich veins of mineral ores have been found.

RAILWAY SHARE LIST.

RAILWAYS.	Paid	Closing pr. last week.	Closing pr. last night.
Aberdeen	£10	3½	4½
Amber, Nottingham, Boston, and Erewash Junction	2½	1½	1½
Arnaugh, Coleraine, and Portrush—25*l.* shares	1½	—	—
Birmingham and Gloucester—100*l.* shares	100	125	126
Birmingham and Oxford Junction—20*l.* shares	2	2½	2½
Bristol and Exeter—100*l.* shares	70	84½	84*
Bristol and Gloucester—50*l.* per share	30	51*	—
Caledonian—50*l.* per share	5	11½	11½
Cambridge and Lincoln—25*l.* shares	1½	—	—
Chelmsford and Bury	1½	¾	—
Chester and Holyhead—50*l.* shares	15	—	—
Cork and Killarney—50*l.* shares	2½	—	—
Cork and Waterford—25*l.* shares	1½	—	—
Cornwall—50*l.* shares	5	—	—
Derby, Uttoxeter, and Stafford	2½	—	—
Direct Northern—50*l.* shares	2½	1½	1½
Direct Manchester (Remington's)—20*l.* shares	2½	¼	¼
Ditto Rastrick's	5½	3½	3½
Dublin and Belfast Junction—50*l.* shares	10	—	6½
Dublin, Belfast, and Coleraine—50*l.* shares	2½	—	—
Dublin and Galway—50*l.* shares	4	2½	2½
Dundalk and Enniskillen—50*l.* shares	2½	—	—
Eastern Counties—25*l.* shares	14*l.* 16*s.*	23½	23½
East Lincolnshire	1½	—	1
Edinburgh and Glasgow—50*l.* shares	50	75	76
Edinburgh and Perth	3	—	—
Exeter, Yeovil, and Dorchester—50*l.* shares	2½	2	—
Goole and Doncaster—20*l.* shares	42*s.*	½	½ dis.
Grand Junction—100*l.* shares	100	—	—
Grand Union (Nottingham and Lynn)	1½	¼	¼
Great Grimsby and Sheffield—50*l.* shares	5	—	—
Great Southern and Western (Ireland)—50*l.* shares	15	23	22½
Great North of England—100*l.* shares	100	—	220
Great Western—100*l.* shares	80	146	145
Guildford, Farnham, and Portsmouth—50*l.* shares	5	4¼	4½
Hull and Selby—50*l.* shares	50	103	—
Isle of Axholme	2½	—	—
Lancaster and Carlisle—50*l.* shares	25	—	—
Leeds and Carlisle	2½	—	1½
Leicester and Birmingham—20*l.* shares	22*s.*	½ dis.	—
Leicester and Bedford—20*l.* shares	22*s.*	½ pm.	½ pm.
Leicester and Tamworth—20*l.* shares	42*s.*	½ dis.	½ dis.
Liverpool and Leeds Direct—50*l.* shares	2½	—	—
Liverpool, Manchester, and Newcastle Junction	1½	2½	2½
London and Birmingham	stock.	228	228
London and Birmingham Extension—25*l.* shares	1½	—	—
London and Blackwall	Av. 16*l.* 13*s.* 4*d.*	—	—
London and Brighton—50*l.* shares	50	64½	65½
London and Croydon	Av. 13*l.* 15*s.* 9*d.*	22½	22½
London and Greenwich	Av. 12*l.* 15*s.* 4*d.*	—	9½
London and South Western	Av. 41*l.* 6*s.* 10*d.*	79½	—
London and York—50*l.* shares	2½	2½	2½
London, Warwick, and Kidderminster—50*l.* shares	2½	—	—
London, Salisbury, and Yeovil—50*l.* shares	2½	1½	1½
Londonderry and Coleraine—50*l.* shares	2½	6	—
Londonderry and Enniskillen—50*l.* shares	5	—	—
Lynn and Ely—25*l.* shares	5	13½	13
Lynn and Dereham—25*l.* shares	5	—	—
Manchester and Leeds—100*l.* shares	82	127	—
Manchester and Birmingham—40*l.* shares	40	81½	81
Manchester, Buxton, and Matlock—20*l.* shares	42*s.*	½ pm.	½ pm.
Manchester and Southampton	2	1½	1½
Midland	Stock	150	149½
Ditto Birmingham and Derby	Stock	—	123
Midland Great Western (Irish)—50*l.* shares	2½	3½	—
Newcastle and Berwick—25*l.* shares	10	25	25½
Newcastle and Carlisle—100*l.* shares	100	—	—
Newcastle and Darlington Junction—25*l.* shares	25	45	45
Ditto New (Brandling)—25*l.* shares	20	43½	43½
Newport and Abergavenny	2½	—	—
Newry and Enniskillen—50*l.* shares	2½	—	—
Newark, Sheffield, and Boston—25*l.* shares	2½	¼	—
North British—25*l.* shares	17½	30	30
North Devon	2	—	—
Northern and Eastern—50*l.* shares	45	—	—
North Kent and Direct Dover—50*l.* shares	2½	1½	1½
North Staffordshire—20*l.* shares	42*s.*	3½ pm.	3½ pm.
North Wales—25*l.* shares	3½	—	—
Norwich and Brandon—20*l.* shares	18	—	—
Northampton, Banbury, and Cheltenham	2	—	1
Oxford, Worcester, and Wolverhampton	12½	8½	8¾
Perth and Inverness	2½	—	1½
Portsmouth Direct—50*l.* shares	3½	3½	—
Preston and Wyre—50*l.* shares	50	30½	30½
Richmond—20*l.* shares	5	—	—
Rugby and Huntingdon—20*l.* shares	2	—	—
Scottish Central—25*l.* shares	7½	16	15½
Scottish Midland—25*l.* shares	10	—	7½
Sheffield and Manchester—100*l.* shares	100	—	—
Shrewsbury and Birmingham	2½	2½	2½
Somersetshire Midland	2½	—	—
South Devon—50*l.* shares	25	33½	34½
South Eastern and Dover	Av. 33*l.* 2*s.* 4*d.*	38½	40
South Midland—20*l.* shares	42*s.*	½ dis.	½ dis.
South Wales—50*l.* shares	5	1½	2½
Staines and Richmond—20*l.* shares	1	¾	¾
Trent Valley—20*l.* shares	5	—	—
Trent Valley and Holyhead Junction—20*l.* shares	2½	—	—
Vale of Neath	2	—	1½
Waterford and Kilkenny—20*l.* shares	3	—	—
Welsh Midland	2½	1½	1
Wilts, Somerset, and Weymouth—50*l.* shares	2½	—	3⅜
Yarmouth and Norwich—20*l.* shares	20	—	—
York and Carlisle	2½	—	—
York and North Midland—50*l.* shares	50	98½	98½
Ditto Selby—50*l.* shares	30	74½	73½
FOREIGN RAILWAYS.			
Boulogne and Amiens—20*l.* shares	10	11½	11
Bordeaux and Toulouse and Cette (Mackenzie)—20*l.* shares	2	1⅝	—
Bordeaux, Toulouse, and Cette (Espalete)—20*l.* shares	2	2	—
Central of Spain—20*l.* shares	2	1½	2
Dutch Rhenish—20*l.* shares	5	7⅜	7½
East Indian	¼	⅝	⅝
Great Northern of France (constituted)	5	14½	13½
Great Western Bengal	¼	—	⅜
Great Western Canada—22½*l.* shares	3½	3½	3½
Jamaica and South Midland Junction—20*l.* shares	1	—	—
Jamaica North Midland	1	—	—
Louvaine and Jemappe—20*l.* shares	4	1½	1½
Lyons and Avignon—20*l.* shares	2	—	—
Luxembourg	4	1½	1½
Namur and Liege—20*l.* shares	4	3½	3½
Orleans and Vierzon—20*l.* shares	10	14½	14½
Orleans and Bordeaux—20*l.* shares	6	10½	9½
Paris and St. Quentin—20*l.* per share	2	—	—
Paris and Orleans—20*l.* shares	20	—	—
Paris and Rouen—20*l.* shares	20	—	—
Rouen and Havre—20*l.* shares	18	28½	28½
Sambre and Meuse—20*l.* shares	6	5	5½
Strasburg and Basle—14*l.* shares	14	—	—
West Flanders	4	2½	—

* Prices obtained from country brokers—no business doing in the London market.

RAILWAY TRAFFIC RETURNS.

Name of Railway.	Lgth. Rway.	Present actual cost.	Last Div.	Traffic Returns. 1846	1845
Arbroath and Forfar	15	£140,782	3½ *p.c.*	£258 0 0	£195
Chester and Birkenhead	15	589,632	2½	606 13 5	527
Dublin and Drogheda	32	631,258	4	730 7 0	858
Dublin and Kingstown	6	349,736	9	1633 3 4	1406
Dundee and Arbroath	17	153,598	6	384 0 6½	376
Durham and Sunderland	19	302,118	2	483 0 4	710
E. Counties & North. & East.	124½	4,090,328	5	9411 1 6	5049
Edinburgh and Glasgow	46	1,686,226	6	3415 11 11	2837
Glasgow, Paisley, and Ayr	51	1,104,773	6	2303 9 5	1943
Glasgow, Paisley, & Greenock	23	806,134	2	1094 7 10	1058
Grand Junction Company *	119	2,597,317	10	—	9120
Gravesend and Rochester	7	85,000	—	269 11 0	199
Great North of England	45	1,296,196	6	—	3133
Great Western	220	8,179,980	8	20927 3 2	17483
Hartlepool	—	—	—	842 7 2	—
London and Birmingham†	176	7,417,217	10	38282 2 1	19627
London and Blackwall	4	1,078,851	1½	1339 4 9	1205
London and Brighton	69	2,653,673	7	5205 0 0	4033
London and Croydon	10	842,592	3½	2007 14 9	1395
London and South-Western	93	2,620,724	10½	9389 14 1	8255
Manchester and Birmingham	31	2,197,585	6	4478 10 9	3807
Manchester & Leeds	51	3,972,869	8	6499 12 1	5944
Manchester, Bolton, & Bury	10	842,725	6½	1172 11 2	902
Midland Company	179	6,636,105	6	16703 7 5	10811
Newcastle and Carlisle	65	1,137,385	5	2201 0 0	1570
Newcastle and Darlington	22½	1,272,031	9	2758 0 4	1207
Newcastle and North Shields	7	316,869	5	514 6 10	402
Norfolk	59	573,818	5	1475 9 10	—
North Union, Bolton &c.§	32	1,060,551	6½	—	1420
Preston and Wyre	22	432,014	2	809 6 6	419
Sheffield and Manchester	19	1,313,325	2½	1941 5 10	683
South-Eastern and Dover‡	103	4,284,924	3½	7880 6 11	5872
Taff Vale	30	648,348	5	1831 16 0	1144
Ulster	25	358,353	3½	579 15 1	247
Yarmouth and Norwich‖	20½	250,037	5	—	247
York and North Midland	53	1,632,859	10	5564 18 1	2577
Paris and Orleans	82	2,082,916	8	6974 19 7	6002
Paris and Rouen	84	1,995,306	9	6297 0 0	5240

* The traffic return of this company is now included in the London and Birmingham
† Including the Grand Junction Company. ‡ Including the Greenwich line.
§ Included in the Manchester and Leeds. ‖ Included in Eastern Counties.

PRICES OF MINING SHARES.

Shares.	BRITISH MINES. Company.	Paid.	Price.
235	Andrew and Nangiles	25½	28
1000	Barristown	4½	36
4000	Bedford	2½	4¾
128	Besore Lead Mine	—	35
320	Birch Tor Tin Mine	10½	12
6000	Blaenavon	50	40
256	Bodwannick	3	5
100	Botallack	175	250
120	Brewer	—	10
10000	British Iron, New, regis.	10	19
—	Ditto ditto, scrip	10	19
128	Budnick Consols	—	30
100	Bwlch Cwmerfin	20	200
1000	Callington	19	25
256	Caradon Consols	45	55
256	Caradon Copper Mine	9½	7
256	Caradon Mines	15	40
256	Caradon United	24	16–25
256	Caradon Wh. Hooper	12	7
1000	Carn Brea	15	120
114	Charlestown	—	240
236	Chypraze	—	16
1900	Combmartin	5½	4½
128	Comfort	—	50
5000	Con. Tretoil Mining Ass.	3½	2½
128	Condurrow	31	52
2560	Cook's Kitchen	—	6
1000	Copper Bottom	1	5
3200	Cornubian Lead Co.	3	—
1024	Cosheen	4½	25
240	Craddock Moor	9	33
128	Creeg Braws	120	80
500	Cubert Mine	11	30
1024	Devon & Courtney Con.	3	3½
1000	Dhurode	2	5
186	Dolcoath	—	80
10000	Durham County Coal	45	9
128	East Pool	5	40
9000	East Tamar Consols	1½	3½
—	East Wheal Albert	1	3
256	East Wheal Alfred	6½	120
94	East Wheal Crofty	—	400
256	East Wheal Kitty	¼	¼
128	East Wheal Rose	50	1300
123	East Wheal Seton	2½	16
512	Fowey Consols	—	50
20000	Galvanised Iron Co.	10	10
10000	Gen. Mining Co. for Irel.	½	⅛
1000	Godolphin	—	35
256	Gonamena	19	120
128	Gover	23	200
244½	Grambler & St. Aubyn	—	30
100	Great Consols	1000	400
256	Great Calestick Moors	—	13
2560	Great Mitchel Consols	—	2
100	Grogwinion	5	20
1000	Gunnis Lake	1½	3
128	Hallenbeagie	—	50
1000	Hanson	5	3
1000	Harrowbarrow Old Mine	3½	4
1000	Harrowbarrow Consols	2	1½
800	Hawkmoor	3	4
6000	Heignston Down Con.	1	2
256	Herodsfoot	19	15
10000	Hibernian	12½	1
1000	Holmbush	14	18
256	Ivy Tor	1½	2½
1200	Kirkcudbrightshire	1½	⅛
2048	Lamerhoee Wh. Maria	7	8
128	Lanarth & Penstruthal	—	150
2048	Lanivet Consols	2	4½
200	Larkholes	1	3
160	Levant	—	150
1000	Lewis	12	4
128	Ludcott	3	3
2800	Marke Valley	10	4
20000	Mining Co. of Ireland	7	12½
1000	Nant-A'r-Nelle	2	2½
200	Nanterrow Consols	10½	16
128	New East Crowndale	7½	2
128	North Fowey Consols	10	25
100	North Pool	11	40
70	North Roskear	10½	350
256	North Treburget	2½	4
100	North United	41	20
128	North Wh. Providence	2½	10
256	North Wheal Rose	26½	25
15000	Northern Coal Co.	23	2
600	Old Delabole Slate Co.	25	45
128	Par Consols	—	500
256	Penhallow Moor	15	5
100	Penrhiw	30	65
128	Pen-y-Cefn Mine	50	55
1980	Perran St. George Un.	13	20
512	Plymouth Wh. Yeoland	1½	3½
10000	Rhymney Iron	50	33 4
256	Rose Consols	10	7
1000	Rosewall Hill	1	3½
1024	Roscarrock	2½	—
2500	Silver Valley	3	3
256	Sourton Consols	3½	5
128	South Caradon	10	400
260	South St. George	9½	16
200	South Harvannah	23	26
800	South Towan	10	1½
256	South Trelawney	8½	15
128	South Yeoland	16½	20
128	South Wheal Basset	—	180
124	South Wh. Francis	—	70
1024	South Wh. Maria	—	2
10000	Southern & Western, Irish	1	2

Shares.	BRITISH MINES—*continued.* Company.	Paid	Price
256	South Wheal Rose	2	3
256	St. Anstell Consols	6	20
94	St. Ives Consols	—	600
1000	Stray Park	43	20
9600	Tamar Consols	3	6½
6000	Tincroft	7	13
256	Ting Tang	67	25
128	Tokenbury	124	50
1024	Trelawney Consols	1½	1½
5000	Treleigh Consols	6	4½
256	Trenow Consols	—	160
96	Tresavean	16	250
120	Trethellan	5	40
120	Treviskey and Barrier	61	120
256	Trewallack	—	29
128	Trewellard	12	25½
4000	United Hills	5	4½
100	United Mines	300	800
128	West Basset	10	15
256	West Caradon	20	340
128	West Cargoll	2	15
512	West Fowey Consols	40	35
—	West Kekewich Consols	—	3½
256	Wheal Kekewich	4	8
256	West Providence	—	12
200	West Seton	—	52
120	West Trethellan	5	32
256	West United Hills	1½	10
256	West Wh. Friendship	3	10
3845	West Wheal Jewel	11	2½
2560	West Wh. Maria	½	3
2560	West Wh. Mitchell	—	2
256	West Wheal Shepherd	—	10
256	West Wheal Tolgus	21½	18
256	West Wheal Treasury	12	5
240	Westerlake	3	3
6000	Wicklow Copper	5	16½
256	Wheal Albert	10	8
128	Wheal Acland	13	10
256	Wheal Allen	¼	4
368	Wheal Anderton	10½	11½
128	Wheal Ann	—	50
256	Wheal Blencowe	—	20
256	Wheal Boscastle	3½	9
236	Wheal Byon	¼	3
128	Wheal Catherine	5½	5
256	Wh. Cleveland	2½	2½
136	Wheal Clifford	—	200
1024	Wheal Concord	3½	3½
256	Wheal Fortescue	4½	14
384	Wheal Franco	22	40
256	Wheal Gill	17½	35
1000	Wheal Harriet	1	—
128	Wheal Henry	—	5
109	Wheal Hope (Zennor)	23	25
256	Wheal Hope	7	1½
256	Wheal Jane	6	40
265	Wheal Kendall	11½	5
1024	Wheal Maria	1	700
4000	Wheal Martha Consols	4	4
256	Wh. Mary Ann	5	94
1024	Wh. Mary (Calstock)	2½	1½
256	Wheal Mary Consols	15	15
256	Wh. Mexico	5	6
256	Wheal Mary Lanivet	2½	20
256	Wheal Norris	9	10
128	Wheal Penrose	—	5
128	Wheal Pollard	11½	12
128	Wheal Prospect	4	9
128	Wheal Providence	34	40
128	Wheal Reeth	1	60
256	Wheal Robins	13	2
128	Wheal Rose	40	25
256	Wheal Salusbury	13	5
512	Wheal Sarah	2½	5
99	Wheal Seton	150	900
256	Wheal Sisters	25½	35
128	Wheal St. Cleer	21½	30
260	Wheal Trelawney	7½	140
256	Wheal Trevenna	3½	4
256	Wheal Trewennan	—	10
128	Wheal Venland	12½	20
256	Wheal Victoria	2	6
127	Wheal Virgin	—	50
1024	Wheal Walter	3	6
256	Wheal Williams	2	12

Shares.	FOREIGN MINES.	Paid	Price
5000	Alten Mining Company	14½	1½
15000	Asturian Mining Co.	6	3
10000	Anglo-Mexican Co.	100	3
3374	Ditto Subscription	25	4
2000	Bolanos	150	4½
12000	Ditto Scrip	15	5
10000	Brazilian Imperial	20	4½
12000	Cobre Copper Co.	40	28
8500	Colombian Co. regis.	55	4½
5000	Ditto Scrip	—	
10000	Copiapo Mining Co.	14	2
20000	General Mining Ass'n.	20	14
5051	Mexican Company	59	5
12000	Mocaubas & Cocaes	25	9
29320	Rl. del Monte, regis.	28½	4
	Ditto unregistered		4
	Ditto Red Debentures	—	19
	Ditto Black ditto	—	17
	Ditto Loan Notes	150	117
7000	Royal Santiago	10	16½
2000	Pachuca Mines	3	3½
11000	St. John del Rey	15	9½
43174	United Mexican	28½	4½

*** *We should feel greatly obliged by agents, or others interested, furnishing us with such corrections for our Share List as we may not have received through our usual channels of information—our object being, to present as accurate a list of prices as can be obtained—to procure which, we solicit the aid of correspondents in general.*

LATEST CURRENT PRICES OF METALS.

LONDON, JUNE 5, 1845.

		£	s.	£	s.	d.
Iron	Bar *a*. Wales	*ton*	8	0— 8	5	0
	,, London		9	0— 9	5	0
	Nail rods	,,	0	0—10	0	0
	Hoop (Staf.)	,,	11	0—11	5	0
	Sheet	,, ,,	0	0—12	5	0
	Bars	,, ,,	10	10—11	0	0
	Rails, average		0	0—10	0	0
	Welsh cold-blast foundry pig		4	5— 5	0	0
	Scotch pig *b*, Clyde		3	7 6 3	10	0
	Russian, CCND *c*		0	0—16	0	0
	,, PSI		0	0—16	0	0
	,, Gourieff		0	0—14	5	0
	,, Archangel		0	0—13	12	6
	Swedish *d*, on the spot		11	0—11	10	0
	,, Steel, fagt.		0	0—15	5	0
	,, ,, kegs *e*		0	0—14	10	0
Copper	Tile *f*		0	0—92	0	0
	Tough cake		0	0—93	0	0
	Best selected		0	0—96	0	0
Copper	Ordin. sheets, *lb.*		0	0— 0	0	10½
	,, bottoms		0	0— 0	0	11½
Tin	Com. blocks *g* ... *cwt.*		0	0— 4	7	0
	,, bars		0	0— 4	8	6
	Refined		0	0— 4	10	0
	Straits *h*		0	0.. 4	0	0
	Banca		4	0— 4	4	0
Tin Plates	Ch., IC *i*, *box*		1	10— 1	12	0
	,, IX		1	16— 1	18	0
	Coke, IC		1	4 6 1	5	0
	,, IX		1	10 6 1	11	0
Lead	Sheet *k*	*ton*	19	5—20	0	0
	Pig, refined		0	0—21	0	0
	,, common		0	0—19	0	0
	,, Spanish, in bd.		0	0—18	10	0
	,, American		0	0—18	0	0
Spelter	(Cake) *l*		0	0—18	10	0
Zinc	(Sheet) *m* export.*		28	0— 30	0	0
Quicksilver	*n*	*lb.*	0	0— 0	4	6
Refined Metal		*ton*	0	0—	—	

a Discount 2½ per cent. *b* Net cash. *c* Discount 2½ per cent. *d* Ditto. *e* In kegs ½ and ¼-inch. *f* Discount 3 per cent. *g* Ditto 2½ per cent. *h* Net cash. *i* Discount 3 per cent. *k* Ditto 2½ per cent. *l* Net cash. *m* Discount 1½ per cent. *n* Discount 1½ per cent. * For home use it is 32*l.* per ton.

[*From our Correspondent.*]

Iron.—Welsh and Staffordshire continue steady, with a moderate demand. Scotch pigs are dull of sale, there being very few buyers above 65s.—and, consequently, no sales of any importance have taken place this week.

Lead.—A considerable business has been done in pig, at fair prices; this market is steady, though not very active.

Tin Plates.—There is no alteration in price or demand to report in charcoals—but cokes have been in demand at 24s. 6d.—at which the holders have begun to make sales for export.

Tin.—In English several sales have been made since the last fall, and the stocks are moderate. Foreign has improved since our last, from the cause mentioned in the last week's *Mining Journal*; and sales of Banca have been made to-day and yesterday at 84s. Fine Straits is quoted at 80.

Spelter.—There being no sellers under 18*l.* 10s. the business has been very trifling, the majority of buyers not being prepared to pay above 18*l.* 5s.

Copper precisely as last quoted.

MONTHLY REPORT.—Spelter.—Transactions last month in this article amounted to about 300 tons, at 18*l.* 5s. and 18*l.* 7s. 6d. per ton; but holders are now firm at 18*l.* 10s.

The shipments to India during the month are—

To Madras and Calcutta	*Tons* 626
Bombay	167
China, Singapore, &c.	37—830

The stock in London on the 1st June, 1846 ..... 3100 tons.

Quicksilver is in limited demand, at 4s. 6d. per lb.

Iron (English) has been much firmer during the past month, and several sales in bars have been made for exportation at 9*l.* per ton free on board here; and 8*l.* in Wales.

Rails have also been more brisk, several thousand tons having been disposed of, at from 9*l.* to 9*l.* 10s. per ton at the works. Scotch pig has been sold to a considerable extent, at from 67s. 6d. to 70s. per ton at Glasgow.

Swedish Bar has been sold in small parcels at 11*l.* to 11*l.* 10s. per ton.

Swedish Steel continues dull of sale.

Coffee.—The shipments to India for this article have fallen off considerably last month, compared to the preceding one; but prices remain the same.

English Tin has again declined in price since last month; but Banca and Straits have considerably improved within the last few days.

Tin Plates have been little enquired for, and prices rather easier.

Pig Lead (English) is exceedingly dull, there being scarcely any demand for exportation. The smelters are sellers at 19*l.* per ton, free on board here.

GLASGOW PIG-IRON TRADE.

Note of the shipments of pig-iron from Port-Dundas, Kirkintilloch, and Clyde, from 1st January till 1st May, 1846, including both foreign and coasting vessels:—

From Clyde	*Tons* 41,980
Port-Dundas	42,315
Kirkintilloch	9,024—93,319 *tons.*

The above includes all the pig-iron sent to Grangemouth in scows, or otherwise.

May 29.—The market has been again quiet this week, and there have been scarcely any transactions; holders are still very firm, and seem not disposed to submit to any reduction. We quote 66s. to 67s. for No. 3; 68s. for mixed Nos.; and 69s. to 70s. for all No. 1. —*National Advertiser.*

May 29.—Since our last there has not been much doing, owing to the uncertainty which some think still hangs over the political measures under discussion. Notwithstanding, prices continue amazingly firm, and unless some store parcels, and other lots not in store, brought to the market under "peculiar circumstances," there has been nothing sold lower than 65s. for No. 3, and 68s. to 69s. for No. 1, cash; but, at these prices, both makers and holders have been offering to sell freely.—*Scotch Reformers' Gaz.*

EXPORTS OF METALS TO INDIA FROM LONDON AND LIVERPOOL,

FOR THE FIRST FIVE MONTHS OF 1845 AND 1846.

Metals.		1845.	1846.	*In.* in 1846.	*Dec.* in 1846.
Spelter	*Tons*	1642	3716	2074	—
Copper		1771	1728	—	43
Iron, British		6259	4316	—	1943
Ditto, foreign		271	1538	1267	—
Tin plates	*Boxes*	3369	3314	—	55
Lead	*Tons*	633	168	—	465
Steel		470	234	—	236
Quicksilver	*Bottles*	101	205	104	—

BOMBAY, May 1.—The prices of copper—with the exception of nails, which have risen in value—have sustained a general slight reduction, and but few transactions have taken place during the fortnight. In iron Swedish bar is scarce, and in request, and would sell readily at our quotations, but British continues without demand, and has given way in price 1 at 1½ rs. per candy. We retain our former quotations for nail-rod, but there is little or none at market, though some inquiry exists for square. Sheet and hoop exhibit no material change in value, but both are dull of sale, notwithstanding the lightness of present stocks. An improvement took place some days since in the price of steel in tubs, but the article has again declined in value, owing to a large addition to the stock at market, and last month's rate may be repeated for it. There is no demand for lead, and we quote pig nominally at half a rupee per cwt. lower than before. In spelter and tin plates there is no alteration to notice, though we are informed of a sale of 250 boxes of the latter at 15½ rs. per box. Quicksilver has risen in value 2 rs. per maund.

CALCUTTA, April 18.—In copper we have again but few sales to report, and former prices are with difficulty obtained, except for small lots, owing to the late accounts from Mirzapore, reporting a scarcity of money there, and consequent falling off in the inquiry for metals. Bar-iron has been placed, to a moderate extent, at our quotations, but in other descriptions, with the exception of a small sale of hoop, we are not aware of any business having been done. In spelter we still hear of but few transactions, and prices are again looking down. Pig-lead (stamped) has sold at 6 rs. per maund, but in sheet we are not aware of any sales having been effected. Block tin has declined in value, owing to heavy arrivals from Singapore and China, and is not now worth more than 29 rs.

COPPER ORES.

Sampled May 20, and sold at Tyacke Hotel, Camborne, June 5, 1846.

Mines.	*Tons.*	*Price.*	*Mines.*	*Tons.*	*Price.*
Wh. Seton	120	£7 0 0	East Wh. Crofty	55	£5 8 0
ditto	119	6 18 6	Longclose	49	4 14 6
ditto	112	7 2 6	South Wh. Basset	64	8 13 0
ditto	104	7 3 6	ditto	58	3 6 0
ditto	96	4 6 0	ditto	53	3 14 0
ditto	86	4 6 0	ditto	52	4 18 0
ditto	77	7 8 6	ditto	51	8 5 0
ditto	76	7 5 0	ditto	40	4 4 0
Tincroft	81	4 10 6	ditto	7	2 18 0
ditto	71	3 13 6	Fowey Consols	113	5 5 0
ditto	64	3 12 6	ditto	109	4 16 0
ditto	63	3 13 0	ditto	94	3 18 0
ditto	62	5 14 0	Dolcoath	73	7 3 6
ditto	60	4 3 6	ditto	53	3 16 6
ditto	46	0 12 0	ditto	46	1 2 6
ditto	38	1 7 6	ditto	43	5 16 0
ditto	37	7 12 0	ditto	32	5 10 6
Camborne Vean	120	6 3 0	ditto	28	0 10 6
ditto	86	5 3 6	Lanivet Consols	98	5 8 6
ditto	76	5 3 6	ditto	57	4 4 6
ditto	69	7 16 6	ditto	40	2 18 6
ditto	63	3 18 6	Godolphin	73	4 5 6
ditto	52	2 8 0	ditto	40	1 15 0
Stray Park	34	5 5 0	ditto	18	0 1 6
East Wh. Crofty	111	5 4 0	ditto	14	14 5 0
ditto	88	6 8 6	East Pool	69	6 9 6
ditto	64	5 6 6	ditto	51	3 11 6
ditto	58	1 0 0	Cundurrow	103	3 17 6
ditto	56	2 10 0	Tretoil	51	4 3 6

TOTAL PRODUCE.

Wh. Seton	790	£5113 12 0	Fowey Coosols	316	£1483 1 0
Tincroft	522	2054 7 0	Dolcoath	275	1219 3 0
Camborne Vean	500	2666 17 6	Lanivet Consols	195	889 9 6
Stray Park			Godolphin	145	582 18 6
East Wh. Crofty	481	2209 18 0	East Pool	120	629 2 0
Longclose			Condurrow	103	399 2 6
South Wh. Basset	325	1804 19 0	Tretoil	51	212 18 0

Average standard, 104*l.* 16s.—Average produce, 7¾.—Average price per ton, 4*l.* 19s. 6d.—Quantity of ore, 3823 tons.—Quantity of fine copper, 284 tons 1 cwt.—Amount of money, 19,265*l.* 8s. 6d.—Average standard of last sale, 105*l.* 0s. 0d.—Average produce ditto, 7½.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	198½	£1100 4 9
English Copper	334½	1600 12 1
Vivian and Sons	606½	2914 13 0
Freeman and Co.	572½	2669 7 4
Grenfell and Sons	410	2261 6 6
Sims, Willyams, and Co.	599	2934 4 6
Williams, Foster, and Co.	1101½	5785 0 4
Total tons	3823	£19,265 8 6

Copper ores for sale on Thursday next, at Andrew's Hotel, Redruth.—Mines and Parcels.—Carn Brea Mines 518—Wheal Prosper 253—United Hills 223—Par Consols 220—Wheal Providence 193—Trenow Consols 192—Wheal Virgin 144—West Wheal Jewel 144—Wheal Trewavas 121—Wheal Busy 82—Wheal Brewer 80—Wheal Kayle 43—Wheal Rodney 41—Herland 10—Thomas's Ore 10—Wheal Treasury 9—Great Polgooth 7—Wheal Brook 4.—Total, 2294 tons.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcels.—Devon Great Consols, Wheal Maria and Wheal Fanny, 1721—West Caradon 412—Fowey Consols 335—Marke Valley 182—St. Agnes Consols 122—Holmbush 109—Bedford United Mines 90—Wh. Gorland 30—North Wh. Basset 17—South St. George 7.—3015.

COPPER ORES

At SWANSEA, for Sale June 10.—Cobre 90, ditto 81, ditto 80, ditto 70, ditto 64, ditto 48, ditto 40, ditto 38, ditto 94, ditto 91, ditto 88, ditto 84, ditto 79, ditto 47, ditto 100, ditto 96, ditto 92, ditto 83.—Cuba 119, ditto 110, ditto 70.—Berehaven 104, ditto 96, ditto 90.—Cronebane 93, ditto 74, ditto 56, ditto 36, ditto 14, ditto 6.—Tigrony 40.—Cuba 80, ditto 72, ditto 69, ditto 57.—Copiapo 90, ditto 86, ditto 81.—Chili 90, ditto 84, ditto 82.—Knockmahon 105, ditto 104.—Ballymurtagh 77, ditto 26.—Llandidno 40, ditto 26, ditto 20.—South Molton 2.—Total, 3464.

BLACK TIN

Sold on the 4th of June, 1846.

Mine.	*Cwts.*	*Price.*	*Amount.*	*Purchaser.*
Wh. Beam (Devon)	18	£49 10 0	£44 11 0	Bolitho & Co.
ditto	14½	47 15 0	34 11 10½	Williams & Co.
ditto	15	44 0 0	33 0 0	Ditto
ditto	12	46 7 6	27 16 6	Bolitho & Co.
ditto	14	45 0 0	31 10 0	Williams & Co.
ditto	5	48 15 0	12 3 9	Bolitho & Co.
ditto	6	46 7 6	13 18 3	Ditto.
ditto	37	45 0 0	83 5 0	Bolitho; Williams.

Total, 6 tons 1½ cwt.—Amount of Money, 280*l.* 16s. 4½d.

MEETINGS OF SCIENTIFIC BODIES IN THE ENSUING WEEK.

Society.	*Address.*	*Day.*	*Hour.*
Asiatic	14, Grafton-street	Saturday	2 P.M.
Geographical	3, Waterloo-place	Monday	8½ P.M.
British Architects	16, Grosvenor-street	Monday	8 P.M.
Medical and Chirurgical	53, Berners-street	Tuesday	8½ P.M.
Civil Engineers	25, Great George-street	Tuesday	8 P.M.
Zoological	11, Hanover-square	Tuesday	8½ P.M.
Syro-Egyptian	71, Mortimer-st. Cav.-sq.	Tuesday	8 P.M.
Society of Arts	Adelphi	Wednesday	8 P.M.
Microscopical	21, Regent-street	Wednesday	8 P.M.
Pharmaceutical	17, Bloomsbury-square	Wednesday	9 P.M.
Royal Literary Fund	27, Sackville-street	Wednesday	2 P.M.
Royal	Somerset-house	Thursday	8½ P.M.
Antiquaries	Somerset-house	Thursday	8 P.M.
Royal Soc. of Literature	4, St. Martin's-lane	Thursday	3 P.M.
Astronomical	Somerset-house	Friday	8 P.M.
Philological	12, St. James-square	Friday	8 P.M.
Royal Institution	Albemarle-street	Friday	8½ P.M.
Royal Botanical	Regent's-park	Saturday	4 P.M.

NOTICES TO CORRESPONDENTS.

Our next Journal will be on the usual Enlarged Sheet, and, besides the several letters from Correspondents, &c., and Miscellaneous matters, necessarily omitted, will contain a Description of Dr. Drake's Ignition Engine—Zinc Mines of Germany—Mining in France—the Glossary of Mining Terms—Metalliferous Treatment of Ores—Several Railway articles, &c. &c.

We are compelled to postpone our report of the proceedings at the first meeting of the General Mining Company for Ireland until next week.

Will "A Practical Cornish Miner," who writes from Bristol, allow us to append his name to his communication, and also forward that of the "Friend," referred to? If so, his letter shall appear.

Erratum.—In our report of Wheal Trelawney, in last week's Journal, we observe that, by an error of the press, we mentioned the firm of *Malin* Brothers and Co.—it should have been Mullins Brothers and Co., of Battersea.

Map of the Caradon District.

With an early Number, we shall present to our Subscribers, on an Extra Stamped Sheet, A LITHOGRAPHED MAP OF THE CARADON MINING DISTRICT.

THE MINING JOURNAL

And Atmospheric Railway Gazette.

LONDON, JUNE 6, 1846.

We have, during the past week, received several communications on subject of the remarks which have appeared in our Journal on the system of mine and share *management*, both in London and Cornwall; and are glad to find, that the proposed measure of establishing some medium, whereby a wholesome check would be had on the movements of certain parties, as regards statements put forward, and some accurate data acquired, which would thus enable the adventurer to judge for himself by an inspection of legitimate reports, and the monthly or periodical accounts presented—meets the concurrence of many correspondents, and parties embarked in mining adventures. There would also be the assurance of fair play, by a register being kept, and by the same course being pursued, as that observed in the Stock Exchange, as relates to the prices of stocks and railway shares—as, under present circumstances, it is hard to depend on the nominal prices quoted through any medium, except where business is known to have been *bona fide* transacted—a matter of some slight difficulty to determine.

The subject is one of interest, and, we feel assured, if taken up and acted upon with spirit, would much tend to give confidence to the mining interest, and restore that confidence which we regret to find wanting in certain quarters, arising from the deceptive practices too oft pursued at the present day. A useful record of mining reports and statistics is much required; and, however we may boast that the Mining Journal affords the only medium whereby such can be obtained, as embracing information relating to mines, not only at home but abroad, yet the carrying the proposed measure into effect would, we feel assured, be a valuable adjunct, and enable even us to furnish additional information to that to be gleaned from a perusal of our pages.

A question of importance, affecting contracts, or terms of agreement, between the employers and employed, as regards mining, came on for hearing on the 1st inst., in the Court of Queen's Bench, when Lord Denman expressed himself in a manner which we consider should be generally promulgated, for the information and the interests of all parties concerned, where agreements of a like nature exist. The case may be stated in a few words. Applications for writs of *habeas corpus* were moved for on behalf of certain parties who had been committed under the 4th George IV., chap. 34, sec. 3, for having absented themselves from the performance of the work which they had contracted to perform, the application being founded mainly only on the ground that the contracts made between the parties were not binding or valid in law, the validity of this description of contract being a point of the utmost importance. By the terms subscribed by the workman, it appears that the workman binds himself *absolutely* to serve the employer exclusively for a period of 11 months, except when any obstruction may arise to the progress of the workings, by the machinery being out of order, or other cause of a similar nature. On the other hand, it is to be observed that the master only binds himself to pay wages to the workman during the period when he shall be actually at work—so that, in the intervals of interruption or cessation from work, the miner would neither be entitled to receive wages from his employer, nor would he be at liberty to seek employment elsewhere, and which, indeed, if the principle of contracts be generally observed in the district where he may be at work, would be totally out of the question—while it would be the policy of the master to ascertain that the miner or collier, with whom he might engage, was under no previous contract. It would, we must confess, appear to us that in a contract of this nature, there is a want of equity—or as might be said, mutuality; and hence, that by the ordinary laws, which we are led to believe control agreements of this nature, such cannot be binding. However, we will at once proceed to the remarks made by Lord Denman, in giving judgment, or the opinion entertained by the Court, with which the other judges expressed their ready assent. In adverting to the question of the validity of the contract, he (Lord Denman) stated, he should be slow to admit, that he entertained any opinion favourable to the supposition, that upon the *mere* grounds of public policy, a man might be released from an agreement into which he had entered, or might not be amenable for the wilful breach of an agreement, even though inconvenient and *inequitable* in itself. As there were, however, some technical objections raised, as to the absence of a sufficient declaration of any offence in the information, the conviction was declared to be bad, and the defendants were discharged. Now, it is apparent, from the *dictum* of the learned judge, if we understand his words, that the employer may draw up an inequitable agreement—that he, a party thereto, is not subjected to any ill arising therefrom, inasmuch that the miner, the other party, has no redress, whatever injury *he* may sustain—while, should the latter wish to take advantage of the want of mutuality which the instrument conveys, he is liable to be imprisoned or fined, on the appeal of the master to the magistrates; for, as will be seen in the present instance, the discharge arose only from a technical objection, and not on the point which is better understood as the merits of the case. Thus, it would appear, that in the case of the miner there is one law for the rich, and another for the poor. We lament this state of things; and, while they exist, cannot henceforth be surprised at strikes, where such a want of fair dealing is manifested.

The interest attached to the extraordinary mineral produce of South Australia is continually on the increase; and great as may have been the incredulity on the subject in England, so long as faith had no other resting place but paragraphs in Australian newspapers, all doubts on the subject must now have vanished, when we see clearly verified at home all the statements which have been made

by the explorers in the colony. Within the past month, not less than five ships, freighted with wool, have unloaded in the London Docks, with several hundred tons of copper ores from South Australia, brought over in lieu of sand ballast, at a moderate tonnage. This ore has been the produce of different mines, and has fully borne out all that has lately been said of the extraordinary *average* richness of the mineral; and it would appear that, although the surface ores are of so valuable a quality, they do not depreciate in depth. At the Kapunda Copper Mine, they have got the shaft down 100 feet, and the ore steadily improves in depth. At the Burra-Burra Mines, the fortunate proprietors of the northern division had raised in six months, with comparatively few hands, 800 tons, which had been sent to Port Adelaide for shipment, and which also improves in depth; some of this ore forms part of the cargoes above mentioned, and one stone, taken at random from the *Taglioni*, on being assayed by Mr. P. JOHNSON, of Hatton Garden, produced 47 per cent. pure copper; and, in Mr. DUTTON'S recent work, from which we have largely quoted, the returns show these ores to be unequalled in quality—perhaps in the world. A table of comparative results, with other foreign mines, will be found in last week's Journal. We have before alluded to the special survey of 20,000 acres in the Mount Barker district, the property of the South Australian Company. They have just received various specimens of ore taken from the surface of this extensive mineral tract, which have been carefully assorted into four lots; from every stone in these lots, a piece has been broken for assay by Messrs. JOHNSON and Sons, Gresham-street, and the result of the average of each lot is as follows—viz.: No. 1, 36 per cent. of fine copper; No. 2, 30 per cent.; No. 3, 29 per cent.; No. 4, 30½ per cent.—of course there were particular stones which produced a much greater result. On reference to the Swansea list, it will be found that the prices obtained for some parcels are 28*l.* to 30*l.* per ton—the produce being from 41 to 44; but it must be borne in mind, that these are not only, not, the average qualities, but not even the very richest stones, *as taken from the mine*; in these cases, the parcel consists of the richest ores, and which, after picking, undergo the process of calcination, by which the cost of freight is considerably lessened in proportion to their value. It is probable, at a future time, the South Australian ores will be similarly treated, when their superiority will, doubtless, be still more apparent. The South Australia Company's ores lie in rich profusion on the surface, and the entire expenses to this country, including insurance and all charges, will be covered by 10*l.* a ton.

VALUE OF THE MINES OF CORNWALL.—The mines of the county of Cornwall employ one-fourth part of the entire population, and produce the larger half of all the metals raised in the kingdom; the wages paid from the copper mines alone exceed 500,000*l.* annually, and the mineral produce is of the yearly value of 1,500,000*l.* The steam-engines employed at the various mines consume annually 80,000 tons of coal. Mr. Treffry, the largest single mine owner in the county, in his extensive mining and other works, has 7000 persons receiving from his employment their entire support.

DEMAND FOR SWEDISH IRON.—In anticipation of not only a continuance, but a great increase, on the present unprecedented demand for iron, in all parts of the continent of Europe, the Swedish Government is bestirring itself to obtain for that kingdom a share of the advantages arising from increased manufactures and extended commerce: in order that the quality of this far-famed iron may be duly appreciated in France, the Government of Stockholm has determined that 10 cases, containing samples of different sorts, shall be sent to France, without paying any export duty. The excellent quality of this iron in the making of steel is well known and appreciated in this country; and enterprising manufacturers and speculators have entered into binding engagements with the ironmasters of Sweden, for some years to come, that more than two-thirds of their produce of that metal shall be sent over to England. This iron is extensively used in the steel manufactories of Sheffield, Birmingham, and other large cutlery and hardware districts, and a large portion exported to India, where it is in good demand. The steel manufacturers of France have, for many years, been extremely jealous of the progress making in the steel and cutlery of this country, and the general demand there is for it in every quarter of the globe, and which has induced them to endeavour to enter into some arrangements with the Swedish ironmasters to furnish them annually a certain quantity of this metal, so as, in a measure, to compete with the factories of England. This first attempt, on the part of the Government of Stockholm, in allowing its free exportation as specimens, is only to induce the French Chambers and the Government, if not entirely to take off the import duty on British and northern iron, at least to materially reduce it—as the tax is so onerous to the prosperity of the iron shipbuilders, railway contractors, and machine manufacturers of every description, that they cannot obtain a sufficient quantity, and of sufficiently good quality, in France, to meet the demands. There is very little doubt that this obnoxious duty on foreign iron, will, eventually, be repealed, as the Ministers of Public Works, Commerce, Finance, and Marine, are strongly in favour of its reduction.

PROGRESS OF MINING IN FRANCE, BELGIUM, AND GERMANY.—The following is the last current price of shares of several of the companies of the forges and furnaces in the above-named countries:—Alais, 2300 fr.; Aveyron Coal Mines, 6850; Loire and Ardeche, 5970; Zinc (the Vieille Montagne), 6100. The general meeting of the Society of Autinous and the United Mines, took place on the 25th inst. The object of this company is the working of 81 zinc mines (blende), lead, silver, copper, and iron ore, situated in the judiciary circle of Cologne. The grant is a perpetual one, and the capital 80,000*l.* The report of M. Rochaz, the acting manager, was received with great applause by the shareholders; after which, a new director was elected. M. Simon, who is Director-General of the Tobacco Manufactures, was unanimously called to the board. Mining operations in France, Belgium, and Germany, are rapidly on the increase, particularly the two latter, in the working of the extensive zinc and iron mines.

POLKINGHORNE'S IMPROVEMENTS IN TREATING ORES.—In our advertising columns will be found a notice of a compound solution for cleansing tin ore, and separating the tin from other metals, sulphur, arsenic, &c., which is now ready for sale at Hayle, in Cornwall, and which we shortly noticed in the *Mining Journal* of April 4. We have now the specification before us, from which it appears the mixture consists of 14 parts by weight of chloride of sodium, 5 parts of muriatic acid, and 5 parts of a solution of sulphate of iron; and the operation is performed as follows:—First, a "tossing machine" must be provided, consisting of a circular cistern, expanding from the bottom upwards, in which is a vertical shaft, having four radial blades reaching to about two-thirds the height of the vessel. This shaft, and its blades, is made to revolve by means of a winch, fly wheel, and axis, on which is a pinion, taking into a bevel wheel on the horizontal shaft. The ore is first pulverised, washed, and calcined; from the calcining furnace the ore is taken, and, while yet hot, thrown into cold water, in which it is allowed to remain for a few minutes. It is then taken out, and cleansed by repeated washings, after which it is made into a paste by mixing it with the above-mentioned compound solution, of which 10 gals. is generally sufficient for a ton of ore. The paste is left to work for a period varying from three to seven days, according to the quantity of foreign matters contained in the ore: it is then broken up, agitated and washed in the tossing machine. The foreign matters mixed with the tin are mostly dissolved in the water, and carried off with it; while the tin falls in a highly purified state to the bottom of the cistern. When the tin is removed from the tossing machine, it is mixed with a flux composed of soda ash and culm, in the proportion of about 2 cwts. of ash, and from 4 to 7 cwts. of the culm to every ton of ore, after which the smelting is performed as usual.

THE CORNWALL FISHERIES.—The mineral produce of the county is not the only one which administers largely to the wants of man, and supports a hardy population. The fisheries, situate on the south coast principally, at Looe, Polperro, Mevagissey, Port Looe, Falmouth, and Mount's Bay, and on the north coast at St. Ives, produce upon an average 60,000,000 per annum, or 21,000 hogsheads of pilchards—while last season produced 100,000,000; and, singular as it may appear, this fish is not caught in any other spot than round the Cornish coast. The price averages from 1s. to 1s. 6d. for 126; they are a favourite food in the county, and are cured largely for exportation—the principal market is Italy; 2000 tons of mackerel are taken by these fisheries annually.

METALLURGICAL TREATMENT OF LEAD ORES.—No. IV.

Treatment of Galena in the Scotch Furnace, or Ore-Hearth.—The operations characteristic of the reverberatory furnace, and the theory by which they are regulated and understood, receive a new application in the method of working, to be presently described. In the ore-hearth, the reactions are most likely the same; but they are disguised in such a manner, that we are obliged to reason indirectly on that which takes place in the operation, without having the means of being convinced by direct experiment. M. Puvis has given a most elaborate account of the treatment of lead ores in the ore-hearth, which account was published in the *Annales des Mines*, and from which the present is collated. Not only has M. Puvis entered into an account of the process, but also into a most elaborate account of the theory involved. When pure galena is employed, it undergoes a preparatory roasting before it is treated on the ore-hearth. This roasting effects its conversion into sulphate and oxide. This transformation ought, as experience has shown, be as complete as possible, in order that the process of smelting in reality, be conducted in the most satisfactory manner, and the method of accomplishing this desirable point is by a roasting in a suitable reverberatory furnace. The furnace charge is generally about 9 or 11 cwts., and these charges are roasted in about 8 hours. The ore being spread out on the sole of the furnace, the fire is got up, so as to effect the production of a constant thick smoke from the surface of the roasting matters. During the whole of the operation, the constant care of the workmen is directed to two points—the first consists in constantly renewing the surfaces exposed to the action of the atmosphere, by removing the roasting galena from one part of the furnace to another, in order to give an uniform temperature to the whole mass; the second care has for its object the prevention of fusion. If this last accident do take place, the agglomerated and softened mass must be well agitated, and an attempt made to mix that portion, which still remains pulverulent with it. When the roasting is finished, the ore is raked out into a pit filled with cold water—this pit is placed under one of the large doors opening into the body of the furnace. During the operation, there is produced gaseous sulphurous acid, which is given off, and oxide and sulphate of lead, which remain on the furnace-hearth; and when the ore contains carbonate of lead (which often occurs in the English ores), it loses its carbonic acid and becomes oxide. The white fume, deposited in the chimneys, varies according to the nature of the ore: that produced in England is generally composed of—

Sulphate of lead	65·6
Oxide of lead	10·2
Oxide of zinc	13·8
Oxide of iron	3·4
Silica and alumina	5·6—100·0

It is sold as a pigment, under the name of "lead fume." In many cases roasting in a heap in rectangular furnaces is substituted for the treatment in a reverberatory furnace, as we have just described. The disposition which seems the best adapted in this mode of proceedure is the following:—The furnace ought to be about 10 feet wide, 11½ feet long, and 4½ feet high; about 110 cubic feet of wood are placed on the hearth in such a manner, that it slopes from the back of the furnace to the front; a mixture of 5 tons of schlich is mixed with its own bulk of powdered charcoal, and the whole mass moistened with milk of lime. This mixture is placed on the logs of wood in layers of about 12 inches thick, alternating with similar layers of small charcoal. Care must be taken, in setting out the layers of ore, to make holes through them every here and there, filling them with charcoal, in order that combustion may take place through them, and a better draught be effected. The heap is then set on fire, and the operation lasts from 30 to 36 days; at the end of which time two-thirds of the schlich is perfectly roasted. The third not roasted is separated, and placed aside for another operation, which leaves a fresh residue, which is yet roasted a third time. During the operation those parts, which become very much heated, enter into fusion, furnishing what is termed "runnings" (*coulures*). It is a very impure lead which is treated on the ore-hearth, where it undergoes a liquation, which purifies it. The ore-hearth on which the roasted ore is reduced is, however, too well known to those employed in the treatment of lead ores, to need a detailed description: we will, therefore, pass on to the operation of reducing in detail.

The roasted ores, treated on the ore-hearth, may contain oxide of lead, silicate of lead, and various mixtures of oxide, silicate, and sulphate of lead, in which the latter generally predominates. It may be readily conceived how oxides or silicates of lead can be reduced in a furnace, where they are mixed confusedly with coal; but it is less easy to explain the reduction of lead from ores roasted at a very low temperature, and which, in consequence, contain a very large quantity of sulphate of lead. According to the theory, by which the operations in the reverberatory furnace are explained, it may be considered that it is proper to roast the ore in an imperfect manner, so as to give rise to an advantageous action between sulphuret of lead, which is not acted upon, and the sulphate of lead produced. Experience has shown, however, that the contrary takes place, and the operation of smelting proceeds in a much more satisfactory manner, with perfectly roasted ore. Many analyses of the ore roasted at Pezay, and experiments made in roasting on the large scale, show that 100 parts of rough schlich give 114 parts of roasted schlich, which may be considered, in a general way, as composed of—

Sulphate of lead	88 or 77 per cent.
Oxide of lead	16 or 14 „
Sulphuret of lead and earthy matter	10 or 9 „

[*To be continued in next week's Mining Journal.*]

REMOVAL OF BAD AIR FROM MINES, WELLS, SEWERS, &c.—The methods hitherto in use for removing carbonic acid, or sulphuretted hydrogen gases, from situations where they have accumulated in such quantities as to become fatal to human life, if taken into the lungs, are, slacked lime water, or currents of air—the first slow, and the latter not always practicable. M. Fancille has lately suggested, and successfully acted upon, a plan for the complete absorption of these gases. In sinking a well at Vichy, the carbonic acid was evolved in such quantities that the men could scarcely proceed with the work; he erected a small boiler, on the principle of the œlopile, the tube from which reached to the bottom of the well, a powerful steam blast was kept up—which at first was opaque, from the gas uniting with the lime, contained in the water, but soon became transparent—and in 30 minutes the works could be proceeded with. M. Halaud, a French engineer, has forwarded a memoir on the expulsion of foul air from mines, which he also effects by the use of steam: he *pumps* the steam into the parts of the mine affected—if it be infected with hydrogen, it is forcibly expelled; but, if carbonic acid, it is absorbed. The memoir states that, in practice, it has been thoroughly successful, and every facility should be arranged at coal mines for the immediate application of this simple means when required.

LAWES'S ATMOSPHERIC RAILWAY SYSTEM.—Mr. Lawes, of the Old Kent-road, has just secured a patent for a peculiar method of atmospheric propulsion, which certainly, in simplicity, is equal to any of the various plans which we have seen. It consists of a common, perfectly cylindrical, tube, laid between the rails in the usual way, with an accurately fitted piston, to which is attached a rope, passing over a pulley at its open end; the other end of this rope is attached to the first carriage of a train, and, on the vacuum being obtained, it will be propelled towards the open end of the tube in a contrary direction to that which the piston travels. Although this mode is so simple, there will arise to it some of the objections which there are to rope traction by fixed engines in the common way—principally great friction; a large number of pullies must be laid down per mile for the passage of the rope—the same as on the Blackwall line—and thus, though the pipe is simple and economical, its appendages make it as expensive as the others. On long lines of railway, we think the continual breaks—as each length of rope could certainly not exceed three miles—would be a complete bar to its utility, unless some plan could be adopted to render the leaving the rope of the tube the train has passed over, and attaching it to the next in succession, a self-acting and continuous operation. For short branches, however, or for lines between two places not exceeding about three miles, we think it might be beneficially employed. For canal traction, and as a powerful and simple means of raising heavy bodies in mines, we have no doubt the plan might be effectually and benefically employed.

Masses of iron and nickel, having all the appearance of aerolites or falling meteoric stones, have been discovered in Siberia, at a depth of 10 met. below the surface of the earth. From the fact, however, that no meteoric stones are found in the secondary and tertiary formations, it would seem to follow that the phenomena of falling stones never took place till the earth assumed its present form.

ABERDARE & ABERNANT IRON WORKS, GLAMORGANSHIRE.

This property, which is of considerable extent and well known to the iron trade, is situate about four miles from Merthyr Tydvil and 20 miles from Cardiff, with which port it communicates by railway and canal. The Aberdare Railway, now in course of construction, being a continuation of the Taff Vale Line, will approach within a few hundred yards of the property; while the Vale of Neath Railway will at once open a communication with that port and Swansea. The works consist of six blast furnaces, making about 18,000 tons of pig-iron per annum, with a mill capable of producing 13,000 tons of bar-iron per annum, and the requisite engines, machinery, forges, buildings, &c., and are held under exclusive rights of working the minerals. There are at Aberdare six *workable* seams of coal, four veins, or beds, varying from 3 ft. to 9 ft. in thickness, two of 3 ft. each (one of 4 ft., one of 9 ft., and one of 5 ft. 6 in.), besides which are others under 3 ft.; an analysis of the coal giving 85·99 of carbon, and producing 88·89 of coke.

At Abernant, the mineral property unworked is described as being far greater than that which has been already won; the seam of coal in course of working being 9 ft. thick, while other seams of inferior thickness have been met with in sinking.

The following table of the comparative results at once shows the superiority of the coal, over that of Staffordshire, Derbyshire, Scotland, and Northumberland:—

	Carbon.	*Volatile.*	*Ashes.*
ABERDARE	87·	11·5	1·5
STAFFORDSHIRE—Tipton	67·5	30·5	2·0
„ Apedale	62·4	34·1	3·5
DERBYSHIRE—Codnor Park	51·5	45·5	3·0
„ Butterley	57·0	40·0	3·0
SCOTLAND—Clyde	64·5	31·5	4·0
„ Calder	51·	45·0	4·0
„ Monkland	56·2	42·4	1·4
NORTHUMBERLAND—Birtley	60·5	35·5	4·0
„ Tyne	67·5	30·	2·5

COKE AND CARBON CONTAINED IN THE ABERDARE COAL.

No. 1	*Coke*	88·50	*Carbon*	87·
2	„	90·89	„	88·89
3	„	90·	„	88·12
4	„	89·17	„	80·42
5	„	91·67	„	84·67
6	„	90·01	„	88·51
7	„	85·74	„	82·99
8	„	93·18	„	91·18
9	„	89·87	„	82·12
Average of the whole	„	88·89	„	85·99

The ironstone measures are described as being more abundant than in any part of the mineral basin of South Wales, and are capable of being worked at a cheaper rate than in any other mineral tract between Aberdare and Abersychan. The leasehold property consists of more than 2000 surface acres, and 28 acres of freehold; the royalties on the mine in no instance exceeding 1s. per ton of 2520 lbs., the present workings not being amenable to the payment of any royalty, such being comprehended in the fixed annual rent. The highest royalty on coal is 6d. per ton, of 2520 lbs., while a large portion of ground remains unworked, which is not subject to royalty, being, in like manner, included in the dead rent.

Circumstances having arisen, whereby, under a decree of the Court of Chancery, the property is announced to be sold on the 11th inst., as noticed in an advertisement, which appears in our columns, we have deemed it right thus to collate the principal features of importance attached to the property—while the superior quality of the Aberdare iron, and the high character which it has acquired, and continues to maintain, will, doubtless, create an interest and desire on the part of capitalists to acquire the property, more especially at the present moment—the several workings being opened, and in active progress, and the furnaces in blast. To the mere capitalist it offers advantages beyond ordinary opportunity—the coal royalties may be *doubled*, and the purchaser put himself in a position (in which the present landlords were some 40 years since) for more than half a century to come. The incoming rents amount to near 2000*l.* a year; and, if taken as a *mining property*, independent of the iron-works, which are now in the course of very profitable working, will, doubtless, command a high price.

STRUVÉ'S PATENT MINE VENTILATOR.—Notwithstanding the numerous plans proposed for working coal mines, with a view to better ventilation, and the consequent saving of human life, how few are there who will step out of the track pursued by their predecessors, but go blindly on, in defiance of the awful accidents and loss of life which are continually recorded. The present invention, which is well adapted for the thorough and continual ventilation of the mine, is based on one of the most beautifully simple and fundamental laws of Nature, as relates to pneumatics—viz.: that on abstracting a portion of atmospheric air from one end of any receptacle, an equal portion will rush in at any other opening to supply its place. The upcast shaft is closed—superseding the necessity of the furnace hitherto used—and is connected with, and forms the passage for the air from the mine to a large air-pump, or air-pumps, of either single or double action: the exterior case, as well as the inlet tunnels, for the passage of the air, may be constructed of masonry, or any other material sufficiently strong; and the lower part of the case contains water, which, while it forms the packing in which a hollow cylindrical piston works, keeps it hermetically sealed: these hollow pistons are formed of thin wrought-iron, or other similar material, and the apparatus is furnished with inlet and outlet valves of very light substance. The pistons are made to ascend and descend either by a rotary or rectilinear motion, produced by steam or other power. The apparatus may be made almost of any size, so as to take out of a mine any quantity of air, whatever may be its depth or extent. It may also be made to create a partial exhaustion of the mine, by closing also the downcast shaft, which, if repeated several times, would effectually drain the goaf of a colliery. In case of an explosion, which would appear impossible, the vast body of air which would still traverse the workings, would soon clear away the choke damp, which always succeeds it; and even if the doors and stoppings were blown down, still the ventilation would be so extensively diffused, that the miners could scarcely fail to arrive within its influence, which would afford them a safe retreat. A counter, such as is applied to engines in Cornwall, attached to the machinery, would register the quantity of air passed through the workings in a given time, with as much accuracy as the pumping of water is determined in Cornwall. The cost of working the coal would be diminished in all cases where the ventilation is known to be safe; and the general advantages to the health of the men employed in collieries, and lead and copper mines, from receiving a large supply of cool and fresh air, would be very great. The following table exhibits the small power which will be required to work the patent ventilator:

Diam. of piston in feet.	*Cub. ft. p. min. thro' an area of 50 superficial feet.*	*Horse-power.*
16	40,200	4
20	62,800	6
24	90,400	11
28	123,000	4
32	160,800	9
35	192,400	14

exclusive of friction, which, as the piston works in water, would be but small, and the first cost of erecting two double 20 ft. patent ventilators, exclusive of the moving power, would not exceed 280*l.* With respect to the observations made at the commencement of this article, the causes which have operated to prevent the improved ventilation of mines, are, we have no doubt, numerous; in some cases, objections have been made to the expense of adopting untried plans which may fail; in others, a prejudice against all innovation on the good old methods has prevailed; and, in too many cases, we believe, cupidity, on the part of butties and underground agents, has been the operating cause. Whatever may have been the unfortunate circumstances which have perpetuated a system fraught with danger to human life and property, there is now no further excuse for delay: here is a principle applied to the ventilation of mines which we see at work in the every day walks of life, and which requires no scientific attainment to understand that, where properly applied, it must have the desired effect. We hope, therefore, that we shall shortly be enabled to record its successful application to some mine of large extent, which would, doubtless, be soon followed by others, and thus enable the men employed in our extensive and still increasing mines to descend to their daily avocations in confidence and safety.—We have seen a model of this apparatus, on a scale sufficiently large to demonstrate its action, at the Institution of Civil Engineers, where, among the other models of that collection, it may be seen, on the introduction of any member; and any further information may be had of the inventor, Mr. William Price Struvé, civil and mining engineer, Swansea.

ON THE MANUFACTURE OF STEEL.

BY DR. CARL SCHAFHAEUTL.

[Translated from the *Revue Scientifique et Ind. du Dr. Quesneville*, for the *Lon. Jour. of Arts.*]

Iron, in the composition of which a portion of the silica is replaced by manganese, will, while being smelted, rather part with the latter than the former. From this it follows, that at the moment when the iron is on the point of passing from a liquid to a solid state, it will retain sufficient silica to form steel. For this reason, during the whole process of refining, the current of air is caused to act rather upon the surface of the metal than through the interior of the fluid mass, in order to avoid the combustion of too much carbon and silica; from which it follows that the casting becomes malleable without losing a sufficient quantity of silica to constitute iron, properly so called, and the product is raw or blistered steel. The casting which does not contain any manganese, loses, by the effect of combustion, a portion of silica proportionable to the quantity of carbon burnt, and furnishes iron only, as a definitive product. It is simply to the mechanical action of the hammer that the distinctive features of steel, as compared with cast metal, are due. In order to effect this change, the blistered steel is broken into pieces and melted down; they are afterwards tempered—again broken into pieces, and welded together at a good welding heat. The steel will be more malleable, and possess more tenacity and uniformity of texture, in proportion to the number of times these operations are repeated. The product is called "wrought or shear steel."

STEEL OF CEMENTATION AND CAST-STEEL.—When bar-iron is heated to a white heat, or even melted in close vessels containing coal or carbonaceous substances, it takes up a certain quantity of carbon, and is transformed into castings of various kinds. If the iron contains, together with silica, phosphorus and arsenic in proportions suitable for softening the granular particles of iron during their combination with the carbon, by keeping it for a certain time at a red heat, with powdered charcoal, a casting is obtained, which, when submitted to the action of the hammer, or of rollers, furnishes a product known as "steel of cementation." During this operation, the stratum of oxide which covers the particles of iron inside loses its oxygen, and passes again into a metallic state; but the vacant spaces occasioned by this are filled up, as the ferruginous particles, which are in a semi-fluid state, re-assume the crystalline form. The carbonic oxide gas, in escaping, forms large blisters on the surface of the metal, under which the softened mass crystallises. On being broken, the interior of these blisters, instead of appearing of a dark colour, indicating the presence of a stratum of protoxide, presents a brilliant and rainbow-tinted appearance, the yellowish and bluish tints distinguishing bronzed steel being observable. If this steel be wrought at a white heat, these blisters will weld in with the mass with the greatest facility. During cementation, the carbon combines with the component particles of the iron in various proportions, depending in a great degree upon the chemical composition of those particles. It is, therefore, a vulgar error to suppose that steel of cementation contains more carbon at the surface than in the interior, as stated in all technological treatises. Thus, in the best Dannemora steel, it very frequently happens, when the cementation is finished, that the centre of the metal contains a much greater quantity of carbon than the superficial portions. It may also happen that steel produced from the best Dannemora bar-iron will differ in an extraordinary manner as regards hardness, in various portions of the bar; and for this reason, in steel works in England, the bars of steel are always broken into several pieces, in order to class those pieces together which are the most similar in quality.

If ordinary iron be submitted to cementation—that is to say, iron in which the proportion of silica is ordinarily insignificant, when compared with that of carbon—and that, independently of this, the iron is deficient in the quantity of phosphorous and arsenic necessary for easily softening the metallic molecules—only carburet of iron and a little siliciuret of iron are produced, but the carbon does not combine with the silica. In this case the steel obtained is deficient in malleability and tenacity—for this reason, that the molecules will not unite or crystallise until they have taken up a quantity of carbon, more than sufficient to produce steel. With regard to simple carburetted iron (when it contains more carbon), it either will not harden at all when tempered, or becomes friable and brittle when heated to redness, even when it does not contain more carbon than steel of good quality.

The fracture of the steel of cementation, now under notice, is grey and dull, while steel of good quality is of a silvery aspect, and presents cubical crystals. The best steel can only be obtained by the cementation of forged iron. Whilst the metal is combining with the carbon, the iron must not enter into a complete state of fusion, as in that case groups of crystals, each possessing a different degree of carbonisation, would be formed; even the best Dannemora iron will not furnish a uniform product fit for purposes of commerce when melted with substances containing carbon. I am well aware that the experiments of Clouet, Hachette, and Bréant, may be opposed to me, as set forth in various treatises upon chemistry; but these are unfortunately mere laboratory experiments, the authors of which have prudently concealed, or passed over in silence, all those which were unsuccessful. When the operator has obtained a regulus at the bottom of his crucible, and when, after immense trouble, he has succeeded in extracting from it a small portion of steel capable of being worked, he immediately hastens to publish his pretended discovery in some journal, of which others become faithful and credulous echoes; thus, since the manufacture of steel has become the subject of chemical inquiry, complaints are daily becoming more frequent upon the difficulty of procuring steel capable of resisting the treatment to which it is subjected in the arts. If the persons who preside over the coining department either at London or Munich, were consulted, they would all agree in saying, that it is now very difficult to meet with the quality of steel necessary for making the dies. Even in England good steel becomes more and more scarce. With regard to the manufactories of cemented or cast-steel established upon the continent, they furnish products, the quality of which is so uncertain, that the workman is often reduced, after having lost his time and trouble, to throw certain portions away, as they want the necessary uniformity and tenacity.

All the artificial alloys of steel with silver, of which so much has been said, are not fit for any thing, and are never met with in commerce. When the steel has been withdrawn from the cementing furnace, and after it has been broken, and the pieces drawn out, they are submitted to one of the two following operations:—The pieces after being sorted are piled one upon the other and welded together (this is called faggoting the steel); or the sorted pieces are placed in clay crucibles of a nearly cylindrical form, and cast in a reverberatory furnace, in which two crucibles are placed, one behind the other, upon cakes of fire-clay; the orifice of these crucibles is closed by a flat cake of fire-clay. The bars of cemented steel, as above mentioned, are divided into pieces of one or two inches in length; these pieces are distributed, according to their degree of carbonisation, in vessels fixed to the walls of the place in which the melting is carried on.

These different qualities of steel are generally combined in such a manner as to obtain a product the best suited for the purposes to which cast-steel is ordinarily applied. In all treatises on practical chemistry it is asserted, that in order to melt steel, it is to be covered with a layer of glass or blast furnace slag; that the opening of the crucible is luted, or at least becomes firmly fixed during the operation; these assertions are, however, erroneous. In the first steel manufactories in Sheffield, steel only is put into the crucibles. With regard to the cover, it is evident that it must not adhere to the crucible, as it is necessary the operator should remove it from time to time with a bar of iron, in order to ascertain the state of the metal.

In order to obtain steel of the best quality, it is not sufficient that the melted mass be run into moulds; the most essential point is to make the casting at the proper time, and for this purpose the operator must be guided by the quality of the steel. This is the duty of the workman, who from long practice can tell the suitable point of fusion, either by simple inspection, or by means of his bar of iron, with which he merely touches the surface of the metal, being most careful not to plunge it into the melted mass. As the quality and uniformity of the steel depend in a great measure upon the experience and judgment of the workman who directs the casting, it follows, that even in England, a good caster is much sought after and well paid. It is not difficult, therefore, to explain why so many of the attempts made to establish manufactories of cast-steel in Germany have failed, and will again fail. Thanks to the errors propagated by technical works, and by the assertions of superficially informed travellers, who had frequently been purposely deceived, it was imagined that in order to obtain English steel of good quality, it was only necessary to melt cemented steel in a crucible, and afterwards pour it into moulds, when in a state of fusion.

As soon as a crucible is emptied, it is replaced in the oven; each crucible serves for one day's work—*i. e.*, four or five castings—after which it is thrown aside. For ordinary purposes, the steel is run into cast-iron moulds of a prismatic form, previously heated and closed. When the steel is required for making saw-blades, plates, &c., it is run into large moulds of a parallelopiped form. Steel which is very hard, and highly carbonized, contracts considerably in the moulds; great skill is, therefore, required to run it into the moulds in such a manner that no vacuum may be produced. In that part of the prism corresponding to the jet, a funnel-shaped aperture, from one to two inches deep is formed; this is detached and melted down with other pieces of steel. The transverse fracture of a prism of hard steel is silvery, and has a number of rays radiating from the centre; steel less hard is on the contrary of a uniform granular and crystalline texture. This steel possesses all the brittleness of cast metal. By fusion, steel of cementation acquires peculiar properties, and does not sweat so much as before casting. When steel is produced from iron of bad quality, and carburets of a different nature are produced during cementation, the melting, instead of improving it, renders it much worse; as, in that case, the different carburets of iron, which are of inferior quality, separate still more during cooling. This has given rise to an old saying, well known among English founders, that "when the devil is put into the crucible, nothing but the devil will come out."

It is to the existence of these heterogeneous metallic carburets, which are produced during cementation in iron of inferior quality, and which form new combinations during the fusion of the metal, that the complaints of workmen working in steel are to be attributed. In fact, these carburets being only, so to speak, agglutinated, even in bars of forged steel, each of them, at the moment of tempering, is contracted or dilated more or less than the one immediately adjoining it—so that from that time a separation commences between the unequally carbonised layers; in other words, a flaw or crack is produced, which may be distinguished by a peculiar noise at the moment when the steel is plunged in the water, or, at least, there is a tendency to separation, which only requires the co-operation of an exterior cause, such as a shock, to effect it. This is often observed in razors, &c. The transverse fracture of cast-steel ought to present a perfectly homogeneous surface, when the bar is broken by a sharp blow, after being cut or marked with a chisel. The slight inequalities which are perceptible ought to be undulating, and to blend insensibly at their bases with the rest of the metallic surface. When, on the contrary, they stand out perpendicularly, the conclusion may be arrived at, that this portion of the bar was the point of contact of two unequally carbonised layers, which, by separating either at the moment of tempering, or at a later period, had inevitably given rise to this rupture.

THE SCOTCH PIG-IRON TRADE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—The following are extracts from some letters received from Glasgow, on the subject of Scotch pig-iron—the correctness may be relied upon; if you think them worthy a place in the *Mining Journal*, I shall feel obliged by your inserting them.—AN OLD SUBSCRIBER: *Liverpool, June* 3.

Extract.

SIR,—The following is the true cost of Scotch pig-iron at this time, put free on board at Glasgow:—

1 *ton* 19 *cwts.* calcined ironstone, at 20s.	£1	19	0
2 „ 15 „ coal (this includes that used for engines, heating blast, &c.), at 8s.	1	2	0
0 „ 8 „ lime	0	2	0
Transit of pig-iron to put on board at Glasgow, averages	0	3	6
Rent, power, wages, &c.	0	8	6
	£3	15	0
Contingencies, 5 per cent.	0	3	9
Total	£3	18	9

As many of the makers buy largely of coal, ironstone, &c., it will then cost them more. The make of all the furnaces does not exceed 9500 tons per week. I calculate upon an average of make for 12 months—not upon a single good week's work, which is too much the fashion here to do. As to the make increasing to any extent, that is quite out of the question—we have not sufficient hands for the present works; and, as many new railroads will soon be started, I think there will be some trouble in this matter. I give you this calculation, which you may depend is very near the mark; you know I have no interest in the matter, except seeing my employers getting better paid for their capital and time. Yours, very sincerely, W. B.

Glasgow, May 29.

Extract from a Letter, written by a Glasgow Merchant.

SIR,—Our market is still very dull—price of No. 3 Scotch pig-iron, 65s.; mixed, 67s. 6d.; all No. 1, 70s. per ton, cash. Plenty of parties wishing to purchase, but waiting in the expectation of a reduction in the price; you may rely the make does not exceed 10,000 tons per week, and the consumption in Scotland and England has, for many months, exceeded this considerably. The stocks in store at Glasgow are reduced nearly 50,000 tons; and at the furnaces and elsewhere, 25,000 tons—making the reduction in Scotland alone 75,000 tons, and in England and foreign parts considerably more. It is well-known the foundries and bar-iron mills in the north of England, which consume largely of Scotch pig-iron, have not at this moment—upon an average—three weeks' consumption on hand. The result of all this will be, that foreigners will come in very soon, and purchase all they can get, and consumers will then have to pay 100s. to 120s. per ton, and even at this not get what they require. It should be understood, that 5-6ths of the present stock of pig-iron belongs to large capitalists, who will not come into the market unless at a very high rate. In my next, I will give you the number of foundries and forges in Scotland, and their weekly consumption. If we go on as we are now, we shall use all our own pigs in two or three years; and, if we have not some great political movement or monetary crisis, not all the bears in Glasgow or Liverpool, nor the irregular and unwholesome sales of the makers in selling what they have not got, or making any sacrifice, so that they may finger the "blunt," as they term it, before delivery, will prevent Scotch pig-iron being 5*l.* per ton very soon. The foreigners must buy—will be obliged to buy—at any price.

Glasgow, May 29. We are, yours, &c., P. & P.

THE IRON TRADE.

BIRMINGHAM WEDNESDAY.—The ironmasters of Staffordshire are now congratulating themselves that they resolved to maintain the present high and unprecedented prices of iron. Two weeks ago it was the intention of some of them to blow out a number of furnaces, in order that they might keep the supply fully within the rates of current demand. Now, there is not only no intention to reduce the make, but on the contrary, a confident expectation that the trade will still further improve, and that an advance rather than a reduction will have to be proposed at next meeting. This calculation is founded on two important considerations, viz.:—1. The prospect of a larger number of railway bills passing than a few weeks since was contemplated; and 2, the abolition of the corn-laws, by which American orders will be multiplied. From analysis of railway bills in progress, which was given in the *Morning Chronicle*, of Tuesday, it appears that preambles of bills have been moved, which, if sanctioned by Parliament, will give power to lay down about 3000 miles of railway. Assuming that the same weight of rails will be used as was required for the London and Birmingham, on which there are 85,000 tons, the total quantity of iron necessary to make the rails of these 3000 miles, will be 937,491 tons. Now, the total quantity of iron smelted in England and Wales is about a million and a quarter, and in Scotland half a million per annum, so that it would take more than half one year's produce to supply this demand; or, should the construction of the various lines extend over the Parliamentary time—three years—upwards of 300,000 tons will annually be called for in this branch of the iron business alone. In these circumstances, and in view of the fact that there is a growing demand for iron for other purposes, such as iron steam-boats, locomotives, machinery, &c., it seems probable that a large demand for iron must continue for some time to come. And here the question naturally arises, whence its resources for this increased supply? Observe its past history. During the last 100 years the iron mines of Great Britain have yielded thus:—

1740	*Tons* 17,000	59	*furnaces.*
1788	68,000	85	„
1827	690,000	284	„
1839	950,000	360	„
1845	1,550,000	550	„

From which it would appear that, unless the mines be exhaustible, there will be no lack of supply, the working power being so elastic and commanding. We believe it has been ascertained that there is not any risk of the ironstone failing in England; and as Scotland has unexplored fields of immense extent, the "golden age of iron" may be looked upon as not yet far advanced in its cycle of development. As regards the prospects of increased demand from America, doubtless the repeal of the corn-laws, and the operation of the new tariff, will be in favour of the iron trade. Up to the last four years we have exported to the United States nearly half our iron products; but latterly our prices have been to high for exportation, either to America or the continent. Indeed the balance—when we take into account the supplies obtained by Belgium from Pittsburg, and other iron districts in the States—has been against England in this respect; and although the facility of exchanging iron for food will now be great, those ironmasters who are best acquainted with the history of mining operations in the States, are not at all sanguine as to their future prospects in that market. Upon the whole, unless the progress of railway-making be materially checked, it is evident that, for some years to come, there will be a steady and large demand for iron.

ELECTRIC TELEGRAPH COMPANY.—The Lords' committee, appointed to inquire into the merits of this bill, met yesterday, for the first time. The opposition, as in the Commons, is on the part of Mr. A. Bain, who claims priority of invention.

PROGRESS OF FRENCH MINING INDUSTRY.

[FROM OUR PARIS CORRESPONDENT.]

It was stated to you, a few weeks ago, that M. Hallette, of Arras, had put his great machine establishment into the hands of a company, he himself retaining the management of affairs. The company has just launched its prospectus. It fixes the capital at 4,000,000 fr., in 8000 shares of 500 fr. One quarter must be paid on subscribing, the other quarters in three payments of three months' interval. The establishment of M. Hallette is the largest in France, and it has turned out the greatest steam-engines in use in this country. Situated near the Belgium frontier, and at no great distance from Dunkirk and Calais, it is enabled to obtain its iron and coal on more favourable conditions than many other establishments; and when the Northern Railway shall be opened, and the Calais and Dunkirk lines completed, the advantages will be increased. An immense number of orders from different railway companies are now awaiting execution; and, from this circumstance, the prosperity of the company cannot be doubted. The prospectus cites the *Mining Journal*, to show that the demand for locomotives is so great in England, that the principal manufacturers will not take orders to be executed within three years—a circumstance that cannot fail to be advantageous to M. Hallette's establishment. The profits, after the payment of 5 per cent. on the shares, and the retention of 2 per cent. towards the repayment of the capital, are divided into 20 parts, of which 13 will be awarded to the shareholders, four to the *council de surveillance*, and three to M. Hallette. M. Hallette takes out in shares the value of the buildings, fittings-up, good-will, &c.

It is reported on the Bourse, that a celebrated railway speculator has just sustained losses to the amount of 280,000 fr.

Official returns of the Belgium Government show that the annual importations increased, in 1845, 57,500,000 fr., or 19 per cent. on 1844. The *entrepots* have received merchandise of a value of 10,000,000 fr. more than in 1844, and the transit duties have yielded an increase of 16,000,000, or 14 per cent. Exportations increased by 26,600,000 fr., or 9 per cent.,—10,800,000 fr. being on Belgian merchandise, the rest on foreign, or on transits. Among the articles on which this increase has taken place, figures coal for 4,400,000 fr., and zinc for a pretty large sum. There has been a decline of 2,400,000 fr. on iron and cast-iron exported; but that was owing to the excessive importations to Germany in 1844; and even after deducting the decline, the exportations of those articles are equal to what they were in the year 1843.

The free trade association formed at Bordeaux will, it is expected, receive shortly the authorisation of Government; and immediately thereupon it will commence, throughout the length and the breadth of the land, a deadly onslaught on the protective system. It will urge war against all protective duties whatever, and will not cease its exertions until all shall be abolished. The exorbitant imposts upon foreign iron will be among the first objects on which it will endeavour to wreak its vengeance.

Last Tuesday was held the annual assembly of the shareholders of *l'Autonius et des Mines Réunies*. The company is formed for the working of 81 mines of zinc, silver, copper, and iron, in the neighbourhood of Cologne. The company was formed in June, 1845, with a capital of 2,000,000 fr., in 2000 shares. Its concessions are for 99 years, with renewals for ever. The preliminary works are got through, and the mines are expected to yield 4000 tons of zinc, and 2000 tons of lead, besides large quantities of iron. The zinc is said to be of most excellent quality. The opening of the mines is looked upon as a source of wealth for the neighbourhood, and the inhabitants have offered to give any lands that may be required for the formation of the roads, &c.

The Paris and Strasburg Railway Company has given an order for 60,000 tons of rails to the manufactory of Hayange. The price is 350 fr. per ton (14*l.*), which is considered extremely moderate.

The Vieille Montagne Company, at its last meeting at Liege, declared its profits for 1845 to be 2,369,073 fr. 24 cent.; 252,000 fr. of which were set aside for the interest, at 5 per cent., on the amount of the shares; 71,925 fr. 27 cent. for expenses for constructions, destined to increase the production in future; 5000 fr. gifts to *employés*; 101,686 fr. 47 cent. for paying off the capital sunk in buildings; 387,692 fr., the reserve of 20 per cent.; 290,769 fr. for the 15 per cent. to administrators and directors; and 1,260,000 fr., for dividends of 250 fr. per share, to be paid on 10th July. Each share will have received for 1845, 50 fr. on the 10th Jan. for interest; 100 fr. towards repayment of capital; and 250 fr. dividend on 10th July—in all 400 fr. The report sets forth, at considerable length, proofs that the company is really, truly, and legally possessor of the mines it works; and that it has the power to continue its existence for ever, by renewals for periods of eighteen years.

The Swedish Government has sent to the French Government 10 cases, containing specimens of Swedish iron. This has evidently been done in the anticipation of a reduction by France of the present duties on the importation of iron. The iron of Sweden is used to a great extent—indeed, almost exclusively—in the steel manufactures of this country. The Councils General of Manufactures and Commerce recommended a reduction, or abolition, of the duty on the Swedish iron, with the view of benefitting the steel manufactories; at the same time that it proposed the modification of the duties on iron, destined for shipbuilding. Neither recommendation, it appears, will be attended to, for the session is nearly at an end, and the Minister of Commerce has not opened his mouth on the subject.

Companies have just been formed for working the coal mines in Nassau and Spain. The rage for mining speculation is just now very violent in Paris, with every prospect of increasing in intensity. It is the nature of the French, when they get an idea driven into their heads, to work upon it with tremendous fury at the beginning, by which notable proceeding they generally get disgusted with it in a very short time. So I expect it will be with this new fit for mining speculation; it will rage furiously for a little while, and then die away. Nevertheless, it appears that some of the speculations—Rothschild's mines, in Belgium, for instance—are capital things, and will pay magnificently. Perhaps, then, it would be worth the while of English speculators in mining property to keep an eye on the Parisian market, so as to be able to snatch up the really good things, when the French begin to weary of them, which, you may depend upon it, they will do from mere love of change. The Great Northern Railway, it is announced, will be formally opened on the 14th. The little line from Paris to Sceaux, is to be opened to-morrow, or in the course of the week.

A return, called for by Mr. Gibson Craig, was issued on Thursday, o all private bills applied for during the present session, for which a subscription contract has been deposited in the Private Bill Office, with their respective estimates, capital stock, and sums authorised to be borrowed. A summary of the document shows, that, out of a total of 265,842,386*l.* for investment in British enterprise, railways claim a lion's share of 259,329,450*l.*; while the ferries, docks, piers, and harbours, principally projected to furnish marine communications for these iron outlets, make a demand of rather more than 5,000,000*l.*:—

Description of Bills.	*Estimated Expense.*	*Capital Stock.*	*Authorised to Borrow.*
Railways	£259,329,450	£254,050,760	£90,472,095
Navigations and canals	377,950	176,000	226,600
Waterworks	1,786,251	1,950,600	901,433
Ferries and docks	3,427,183	1,659,000	2,033,000
Piers and harbours	531,627	272,000	294,933
Bridges	130,000	—	60,000
Roads	22,367	—	—
Miscellaneous	237,568	277,500	282,500
Total	£265,842,386	£258,370,860	£94,270,561

DUCHY OF CORNWALL.—It appears by a Parliamentary paper, that the gross revenue of the Duchy of Cornwall, from the 1st of January to December 31, 1845, amounted to 44,166*l.* 11s. 3d. Of this sum a balance of 5474*l.* 8s. 1½d. remains in the hands of the receiver general; the remainder was disbursed. The salaries exceed 8000*l.*, the law charges were 3188*l.* 13s. 3d.; repairs and permanent improvements, 4583*l.*; imprest on the assessional manors and commission, 2105*l.*; paid as a loan to enable the council to complete purchase of lease of toll tin from Capt. Crease for the benefit of the inheritance, 7838*l.*; payments to the trustees and treasurer of his royal highness, the infant duke, 11,035*l.* The salary of the treasurer (H. Twiss, Esq.) is 600*l.* a year.

A NEW IRON FOUNDRY has been commenced near Chesterfield: a company has taken the dog-tooth and black shale ironstone, and deep hard coal, under the lands of Sir H. Hunloke, Bart., in the townships of Walton, Hasland, and Wingerworth, and are about to erect furnaces and other works, for smelting and manufacturing iron, in a field adjoining Stalford or Storforth-lane, on the Derby-road.

The opening of the North British Railway, from Edinburgh to Cockburnspath, has been further postponed to the 15th June.

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY.....Great Kent Atmospheric Railway—London Tavern, at One.
Waterford and Kilkenny Railway—London Tavern, at One.
TUESDAY.....Bank of British North America—office, at Twelve for One.
WEDNESDAY...Mexican and South American Company—office, at One.
Leicester and Bedford Railway—London Tavern, at One.
Chelmsford and Bury Railway—London Tavern, at Twelve for One.
THURSDAY.....Ely and Huntingdon Railway—offices, at Three.
Lynn and Ely Railway—offices, at Two.
FRIDAY.....Silver Valley Mining Company—offices, at Two.
Staffordshire and Shropshire Junction—offices, at Twelve.
Governor and Company of Copper Miners in England—office, at Twelve.
SATURDAY.....Shropshire Mineral Railway—London Tavern, at Twelve for One.
Hayle Railway—offices, at half-past Twelve.
Wexford, Waterford, and Valentia Railway—London Tavern, at Two.

[*The meetings of Mining Companies are inserted among the Mining Intelligence.*]

LLANELLY RAILWAY AND DOCK COMPANY.

The annual general meeting of proprietors in this company was held at their offices, Old Jewry Chambers, on Monday last, the 1st inst., when, in the absence of the chairman, R. Biddulph, Esq., on the motion of Sir R. PRICE,

Mr. COLLIER was called to the chair.

Mr. GLASCODINE (the secretary) having read the advertisement convening the meeting, read the following report:—

REPORT.

The statement made in January last has already made the proprietors aware of the reduction of the amount raised by loans: since that time a portion of the balance of the purchase-money due to the old proprietors has been paid off; it is hoped that, in the ensuing year, the whole of this will be liquidated. The receipts for the year exhibit an increase of 535*l.* 13s. 3d. over those of the preceding year; this increase has arisen principally during the last three months, the trade is now good—the demand for anthracite and other Welsh coal and culm being steady and increasing; and as ships may be obtained at reasonable freights, there is no reason to doubt that it will continue to flourish to the end of the season. The committee regret, however, that circumstances have required an expenditure which has increased in a much greater degree than the revenue. The proprietors were informed at the meeting in January, that the rise in the price of wages and iron, with certain heavy repairs imperatively required, had caused a considerable addition to the expenses. Soon after that period the works were damaged by the irruption of the sea, which, rising to an unprecedented height, carried away a portion of the line and displaced the rails over a great length; independently of the immediate cost of the consequent repairs, the expenses arising indirectly from this, in the consumption of sleepers and other materials, as well as the labour of placing them, are very considerable. The anxious attention of the committee has been directed to keeping the expenditure as low as possible. A surplus of 1076*l.* 13s. 8d. appears on the revenue account, being equal to about 10s. per share; the committee do not, however, recommend that this sum be divided among the shareholders.

From the statement of accounts, it appeared that the entire cost on the capital, from the commencement to the 30th April last, was 227,121*l.* 11s. The balance from last account was 2856*l.* 10*l.* 5d., from which deduct dividends paid, 2149*l.* 17s. 6d., leaves 706*l.* 12s. 11d.; the railway revenue and dock dues, 10,350*l.* 15s. 1d.; rents and interests, 157*l.* 1s. 11d.—total receipts for the year, 11,214*l.* 9s. 11d. The disbursements were as follow—viz.: repairs to new line, 1621*l.* 9s.; old ditto, and rates and taxes, 1195*l.* 17s. 10d.; dock account, 483*l.* 13s. 3d.; locomotive account, 2871*l.* 1s. 4d.; expenses in London and Llanelly, for management, rent, &c., 1054*l.* 10s. 11d.; incidental expenses, advertising, travelling expenses, &c., 231*l.* 19s. 4d.; interest, 2487*l.* 7s. 7d.; law charges, 150*l.* 19s. 8d.; income tax, 85*l.* 17s. 4d.; balance in favour of the company, 1076*l.* 13s. 8d.—total as above, 11,214*l.* 9s. 11d.

By the desire of the chairman, the SECRETARY then read a new bye-law, for the better regulation of the vessels at the shipping stages, by not allowing them to remain alongside, unless they shipped a certain quantity of coals or culm, amounting to 342 tons for the whole quay daily, which was confirmed by the meeting; and the CHAIRMAN explained, that they found this necessary, as vessels had been in the habit of taking up the stages, and taking in but little coal, till it suited their convenience. He then observed, that as to the state of the accounts, they were not in a very satisfactory condition, but he could state that trade was never in a more flourishing state in their neighbourhood than at present; and it should be remembered that, on the completion of their line and dock, they had not a trade ready to take advantage of their accommodation, but they had to seek, to force a trade, and that under disadvantages: the returns last year somewhat exceeded those of the year previous, but the first three months of the present year, in comparison with those of 1845, showed an increase in their traffic returns of 758*l.*, and the last 10 days' returns were at the rate of 730*l.* per fortnight, being 70*l.* more than the corresponding 10 days of last year; he had no doubt there would have been more business last year, but there had been so much difficulty in procuring shipping, which he was happy to state was not now the case.

A very long and uninteresting conversation now ensued, on various items in the accounts, several proprietors suggesting alterations in the mode of keeping them, each to his own peculiar fancy; and it is but justice to remark, that in our humble view of the case, from an inspection of the balance-sheet, they are perfectly clear, simple, and intelligible, in the absence of a profit and loss account, which would certainly have rendered many of the questions unnecessary—for instance, such an item as 5751*l.* 0s. 9d. loss on the steam-tug *Hercules*.

The CHAIRMAN explained the several points remarked upon, the most important of which was, perhaps, the inquiry, as to what portion of the amount of 5677*l.* 11s. 4d., owing to the company from sundry traders for tolls, was good, and what might be considered as irrecoverably bad? He explained that there were, in addition to the old bad debts, two, amounting to 500*l.*, decidedly bad, and two others, for the recovery of which coercive measures were being taken: they had not written off any bad debts for upwards of two years; the absolutely good debts out of the above sum might be taken at 3000*l.*

Mr. BIGG (the late secretary to the company), at some length, remarked on the unsatisfactory state of the company's affairs, and the like nature of the report, and recommended that the railway should be leased, and that a committee of five of the proprietors be appointed to co-operate with the directors, to consider the best steps to be adopted under the circumstances. This was first proposed as an amendment on the motion for adopting the report, but, by agreement, the report was unanimously adopted, and Mr. Bigg's resolution was taken as a substantive motion, but was lost, the mover and seconder being its only supporters, although the directors present most fully expressed their willingness, and even wished to be assisted in their deliberations by the proprietors.

Sir ROBERT PRICE, however, expressed his opinion, that even an attempt to lease the line at present would be highly injudicious, and lead to the depreciation of their property—while, by persevering in a judicious economy, and taking advantage of every improvement in the trade of the district, to increase their returns for the present, the time would arrive when the South Wales Railway Company would find it to their interest to take their line on terms advantageous to the proprietors.—The CHAIRMAN further stated, that in the report they had refrained from holding out hopes which might not be realised, but he would just inform them, that in a very short time iron furnaces would be commenced in the Valley of Llanelly, and there being plenty of all the requisite materials for making iron in abundance, it was probable more would follow, which would increase their traffic to a great extent.—A vote of thanks was then passed to the chairman and directors, and the meeting separated.

REGENT'S CANAL COMPANY.

The half-yearly meeting of this company was held on Wednesday, the 3d inst., at the City-road Basin—J. E. D. BETHUNE, Esq., in the chair.

The report stated, that the agreement as to the project for transforming the Regent's Canal into a railway having become void, in consequence of the required amount not having been subscribed, the sum of 5000*l.*, deposited as caution-money by the committee of that scheme, became the property of the Regent's Canal Company; and that the same had been transferred to the account of the reserve fund—thereby increasing the amount of that fund to 13,835*l.* 18s. 2d. The committee had borrowed of this amount 2605*l.* 17s. 3d., to pay for a portion of the property required for the new entrance to the Limehouse Dock. The tonnages in the six months, ending the 31st of May, amounted to 528,865 tons, producing a return of 18,934*l.*; and the profit for the half year, ending 31st. March last, amounted to 13,057*l.*, making, with 393*l.*, an amount of 13,451*l.* 1s. 4d to be carried to the profit and loss account. A deduction of 5 per cent. on the nett profits of the half year was suggested as a remedy for preventing the reserve fund sinking below 10,000*l.*, the amount agreed upon for that fund, before a dividend be declared. In conclusion, the committee suggested a dividend out of the profits of 12s. per share, leaving a balance of 600*l.* towards the next account.—A conversation ensued, as to the plan of borrowing of the reserve fund.—Mr. HICHENS thought it was judicious in the committee to borrow of that fund at a low interest, instead of paying 5 per cent. on their bonds.

Mr. GREEN complained of two of the committee, more particularly, jobbing in the shares of the company.—Mr. MATHEW also complained, and begged to move for the number of shares sold by the committee during the last six months. The CHAIRMAN said, that a portion of his shares had only been sold in consequence of a marriage settlement, and ordered the transfer book to be produced. Mr. Ald. WILSON declared he had not sold a share since the beginning.—The SOLICITOR reported, that the secretary had gone through the transfer book for the last 12 months; but he could not find that any shares had been sold by the committee. (Hear, hear.)

Mr. GREEN, notwithstanding his statements, gave much credit to the committee for the economy that existed in the management.

A PROPRIETOR saw an amount for interest, and no account of the capital stock, from which it was derived.—The CHAIRMAN said, the fund had been transposed since, in part payment of the newly-acquired property.

The report, and the resolutions arising from it, were then adopted.

In reply to a proprietor, the CHAIRMAN said, that he was not at liberty to state what had transpired with the East and West India Dock Railway Company; but they might rely on the committee being alive to their best interests; and, in case of any proposal being made, it would be made known to the proprietors.—The committee were elected one by one, instead of collectively, as before, and without opposition.—The auditors were then elected.

A vote of thanks was unanimously passed to the chairman, and the meeting adjourned.

VALE OF NEATH RAILWAY COMPANY.—The necessary meeting, under the sessional orders of Parliament, to take the sense of the scripholders, whether the undertaking should be proceeded with, or otherwise, was held at the offices, 449, West Strand, on Wednesday, the 3d inst.—LOUIS VIGURS, Esq., the chairman of the board of directors, in the chair.—The SECRETARY having read the advertisement convening the meeting, the CHAIRMAN said, the entire capital of the company was 550,000*l.*, in 27,500 shares; the sessional order of Parliament required that one-third of this capital should be represented at the meeting to render it legal, or 9167 shares, amounting to 183,340*l.*: he was happy to say there were present 10,746 shares, and there was, therefore, no doubt as to the legitimacy of the meeting—of this number it was necessary that two-fifths of the amount of scrip present should be held by assenting parties. It was highly satisfactory to state, that in this case there was not one dissentient, and he had no doubt of a successful issue; the bill had been read a second time in the Commons, and was to be committed on the 15th inst. The landowners in favour of the line were in the proportion of 10 miles to 3 throughout its length, and the price which the scrip had maintained throughout the late unprecedented panic, was a sufficient guarantee for the stability of the undertaking.—The SECRETARY then read the heads of the several clauses in the bill, when the usual affirmative resolution was passed, and the chairman and secretary authorised to affix their signatures to the bill.—It was here announced that 50 more scrip had just been received in the affirmative.—A vote of thanks was then passed to the chairman, and the meeting separated.

GRAND JUNCTION CANAL COMPANY.—The half-yearly meeting of this company took place at the Crown and Anchor Tavern, Strand, on Tuesday last, at which SAMUEL MILLS, Esq., presided.—From the report, it appeared that the net tonnages for the half-year ending Dec. last, amounted to 47,109*l.* 14s. 7d., being 19,471*l.* less than the corresponding six months of the preceding year. This decrease in the receipts had been occasioned by the reduction, in conjunction with the Leicester lines of canal, of all thoroughfare tonnages to ¼d. per ton per mile, as agreed on at a meeting of canal delegates, held at Birmingham on the 12th of July last, and also by the reductions in the company's local trade, which they had been compelled to make. In consequence of the drought, the nine new engines north of Tring summit were worked during the whole of the half-year, which caused an excess of expenditure of 3832*l.* 18s. 6d. The committee recommended the meeting to declare a dividend of 3*l.* per share, amounting to 34,365*l.* The total revenue for the half-year was 88,040*l.* 8s. 10d., which, after the expenditure, left a balance of 50,176*l.* 3s. 4d.—After a discussion of several hours' duration, the report was adopted, and the meeting adjourned.

WATERLOO BRIDGE COMPANY.—The half-yearly general meeting of proprietors was held on Thursday, at the Crown and Anchor Tavern, Strand.—JOHN BIGNOLD, Esq., in the chair.—Mr. G. POWELL (chief clerk) read the report, which stated that the receipts figured 8336*l.* 19s. 10d., and the disbursements, including interests on bonds and dividends on stock of 3s. in the 1*l.*, were 7686*l.* 11s. 9d., which left a balance in favour of the company of 650*l.* 8s. 1d.

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